NOT TO BE TAKEN AWAY

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IDIOCY AND CONGENITAL SYPHILIS*.

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THE question of the importance of syphilis in the parents as a cause of mental deficiency in the offspring has led to the expression of very divergent opinions. The majority of authorities appear to have held that syphilis was a relatively unimportant factor. Others from a study of cases which have come under their notice have inclined to the view that syphilis was a very potent cause in the production of idiocy.

E. Mendel (1868) quoted an interesting case described by Carl Friedrich Haase in 1828. A young woman who had been infected by her husband had three miscarriages. The fourth pregnancy resulted in the birth of a living child which died with marked hydrocephalus at the age of seven months. After quoting the opinions of several writers Mendel remarks that "clinical observations in this connection are limited to a few cases, the number of which stands in marked contrast to the frequency with which pathological changes are found in the brains of children who succumb to hereditary syphilis. In any case the majority of hereditary syphilitics die long before there can be any question of mental deficiency. In those

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cases, however, in which hereditary syphilis is latent or cured, but which at a later period develop symptoms of mental disturbance, it is generally impossible to refer such disturbance to hereditary syphilis, for the objective symptoms of this disease are then variable, indefinite and in no sense specific." Mendel, as may be seen from this extract, saw very clearly the difficulties which beset the proof of the view which he adopted.

It was not, however, generally considered that syphilis was a very important factor in the causation of idiocy. Critchett in 1860 stated that "there does not appear to be any reason for supposing that actual idiocy is at all a common consequence of inherited syphilis. About three years ago we looked through the patients at the Redhill Asylum without finding a single one whose teeth were characteristic, and Dr. Down informs us that he has recently made another inspection with a like result."

Sir Jonathan Hutchinson (1863) found an idiotic condition in only three out of 170 cases of congenital syphilis. The same observer (1879) examined the teeth of the idiots at the Earlswood Asylum but did not find the specific characteristics in any considerable number of cases.

Kerlin (1880) made a careful inquiry into the histories of the parents and grandparents of 100 cases of idiocy. In only 2 cases was a history of syphilis elicited, while 4 only of the 100 patients showed any evidence of a syphilitic infection.

Judson Bury (1883) described 6 cases of mental deficiency in children who were the subjects of congenital syphilis. He came to the conclusion "that hereditary syphilis is a more frequent factor in the production of mental deficiency than has hitherto been recognised."

Shuttleworth (1888) examined the records of 1000 cases at the Royal Albert Asylum at Lancaster. In 10 cases only was there reason for suspecting inherited syphilis, and in 4 cases only could the evidence be called satisfactory. Shuttleworth, however, expresses the following opinion: "In spite of these figures I am inclined to believe that inherited syphilis plays a larger part in the production of mental enfeeblement in childhood than institution statistics would lead us to suppose."

A few cases were recorded by Fletcher Beach (1888), who, however, concluded that "syphilis is not a common exciting cause of imbecility."

Down (Lettsomian Lectures, 1887), in discussing the causes of idiocy, states that in not more than 2 per cent. of idiots were there signs of inherited syphilis.

Piper (1893) examined 316 idiots and found evidence of syphilis in 5 per cent.

Hahn (1898) examined 540 idiots at the Alsterdorfer Asylum; of these, 40 (7·4 per cent.) were found to be syphilitics. Of 100 deaf-mutes at the Hamburg Asylum 4, and of 60 blind children 10, showed evidence of congenital syphilis.

Wachsmuth (1905) was unable to find even one congenital syphilitic among 185 idiots whom he examined.

Ziehen (1908) records the result of a careful statistical inquiry as to the frequency of congenital syphilis in cases showing a slight degree of mental deficiency. Ziehen found that syphilis was probably present in 17 per cent. and certainly present in 10 per cent. of the cases examined.

A very different result was recorded by Shuttleworth and Fletcher Beach, who could only trace inherited syphilis in 1·17 per cent. of their cases.

From this review of the subject it will be seen that a very wide divergence of opinion exists. It appears, however, to be quite certain that only a small proportion of idiots show the classical signs and symptoms of congenital syphilis, and if we are restricted to the usual methods of examination we must come to the conclusion that congenital syphilis has little connection with idiocy. On the other hand, the view that congenital syphilis is an important cause of idiocy has been put forward by several writers. This opinion has been based for the most part on cases of idiocy, in which, while the usual signs of syphilis have been wanting in the patient, it has been possible to establish a definite history of syphilis in the parent. The number of such recorded cases is, however, small.

The opportunity of collecting further evidence was afforded by the introduction of the Wassermann test. In the five years which have elapsed since the discovery of the Wassermann test, it has been established beyond all reasonable doubt that a positive reaction may be regarded as conclusive evidence of a syphilitic infection. It is stated that positive reactions have been obtained with the sera of patients suffering from framboesia, trypanosomiasis, leprosy, and in certain cases of malaria. These diseases are, however, of rare occurrence in this country, and we may safely conclude that a patient whose serum gives a positive Wassermann reaction has certainly been infected with syphilis. The Wassermann reaction is, moreover, a remarkably constant sign of syphilis, for it is well known that syphilitic patients during a latent stage, at a time when no sign or symptom of the disease is apparent,

may give a definite reaction to the serum test. By the aid of the serum reaction we are able to detect syphilis in an individual who not only may show no sign of syphilis but may appear to be in perfect health. Still more remarkable are those cases in which a positive serum reaction is from first to last the only evidence of infection. It has been established that mothers of syphilitic children who appear to be in perfect health and who have never shown any sign of syphilis give in the large majority of cases a positive reaction to the serum test. The work of the last five years has established two very important facts :

(1) A positive Wassermann reaction (if certain diseases, rare in this country, can be excluded) may be accepted as specific evidence of syphilis.

(2) A positive reaction may be obtained with the serum of an individual who shows no other evidence of syphilis.

If we are prepared to accept the truth of these two statements, it is obvious that we have in the serum test an invaluable aid in determining the ætiology of a variety of morbid conditions.

The examination of the blood-serum of idiots by the Wassermann reaction has been the subject of several papers.

Raviart, Breton, Petit, Gayet and Cannae (1908) examined 246 cases, of which 76 (a little more than 30 per cent.) were found to give a positive reaction.

Kellner, Clemenz, Brückner and Rautenberg (1909) examined 216 cases, of which 13 gave a positive reaction by Stern's method, while 9 only gave a positive reaction by the original Wassermann method. To the 13 cases must be added 3 cases which were deficient in complement and were found to be positive by the original Wassermann method (7·4 per cent.). It should be noted that of these 216 cases half were over thirty and 40 cases only were under fourteen years of age. Of the patients under fourteen years of age 20 per cent. gave a positive result, of those over fourteen only 5 per cent.

Lippmann (1909) examined 78 cases at the Uchtspring Asylum, and obtained a positive reaction in 7 cases (9 per cent.). An examination of the cases at the Dalldorf Asylum gave a positive result in 13·2 per cent. Lippmann also examined 77 cases by clinical methods, and decided that 40·2 per cent. showed signs of congenital syphilis.

In 1909 I had the opportunity of examining 330 of the inmates of the Wilhelmstift, an asylum for idiots at Potsdam. A positive result was obtained in 51 cases (15·4 per cent.). Among the 51 cases which gave a positive reaction 7 were found which had definite signs of syphilis, and 3 or 4 in which syphilis might have been sus-

pected but not with certainty diagnosed. There were 2 cases with definite signs which gave a negative reaction. That is to say, among the 330 patients were 9, or including doubtful cases, 13, which from physical signs and symptoms would have justified the diagnosis of syphilis. The results in detail were as follows:

	Cases examined.	Positive.
Simple idiocy of all grades	287	44
Congenital spastic diplegia (Little's disease)	15	1
Marked hydrocephalus	14	4
Epilepsy	1	1
Microcephalic cases	4	0
Mongols	1	0
Deaf and dumb	7	1
Progressive muscular dystrophy, with mental symptoms	1	0

All the cases which gave a positive serum reaction were subsequently very carefully examined with the object (1) of discovering any sign of syphilis which had been previously overlooked, and (2) of detecting any symptom or group of symptoms common to all the positive cases. Of the positive cases, one was subject to epileptiform convulsions and showed slight choreic movements, one had strabismus and nystagmus, one had a right-sided hemiplegia, one had spastic diplegia and conformed to the type of Little's disease, one was a deaf-mute, and two were aphasic. Among the remaining cases I was unable to detect any evidence of a local lesion.

An examination was made of the cerebro-spinal fluid from 12 cases which had given a positive serum reaction. In only one case was a positive reaction obtained. I also obtained for examination specimens of serum from the parents of ten of the positive cases. The results were as follows:

Patient.	Age of patient.	Result of examination of— Father's serum	Mother's serum.
B—	9	Positive	Positive
Har—	15	Not examined	Positive
Kr—	11	Positive	Positive
M—	11	Positive	Not examined
V—	13	Not examined	Positive
O—	11	Negative	Not examined
Sc—	16	Positive	Not examined
R—	12	Negative	Not examined
N—	9	Negative	Negative
He—	14	Not examined	Positive

Thus among 13 parents of children giving a positive reaction, 9 were found to give a positive reaction. Six mothers were examined and 5 gave a positive reaction. Seven fathers were examined, and in 4 cases a positive reaction was obtained.

It will be noticed that in the above table in the case of the patient Har— a positive reaction was obtained at an interval of fifteen, and the case of Sc— at an interval of sixteen, years after the birth of a syphilitic child. The period during which a positive reaction may be obtained is known to be extremely variable in the case of the acquired form of the disease. In the congenital form it might be expected that the percentage of positive results would bear a close relation to the age of the patients examined. A grouping of the 330 cases according to age gives the following result:

	Examined.	Positive.	Percentage of positive results.
(1) Patients aged 10 years and under (of these two only were less than 5 years old)	94	20	21·27
(2) Patients from 11 up to 15 years of age inclusive	142	24	16·9
(3) Patients from 16 to 20 years of age	66	4	6·06

Of patients aged from 21 to 30, 24 were examined with 3 positive results. The remaining 8 patients ranged in age from 31 to 44 and all 8 gave a negative reaction.

The above table appears to show that the percentage of positive results diminishes rapidly after the sixteenth year, and that a larger percentage of positive results might be expected from the examination of a series of very young cases. In any case the average age of the patients investigated must be regarded as an important factor in any estimation of the prevalence of congenital syphilis, and it seems to me possible that the very contradictory results already published may be reconciled by taking the age-factor into consideration. Of the 51 cases in which a positive serum reaction was obtained 7 only showed conclusive evidence of congenital syphilis from a clinical standpoint. In the remaining 44 cases a diagnosis of syphilis rested on the evidence of the serum test.

I had hoped that by a careful examination of those cases which had given a positive result to the serum test it might be possible to detect some symptom or group of symptoms which was common to all. This I failed to do. Very few of the positive cases showed any evidence of a gross lesion in the central nervous system; and this, I think, is quite in accordance with what one might expect, for

the gross changes in the brain which are known to be due to congenital syphilis are not compatible, as a rule, with a continuance of life. If a causal relation exists between congenital syphilis and idiocy, the condition which arises may perhaps be classed as parasyphilitic. The absence of the ordinary signs of congenital syphilis in idiocy is closely paralleled in the already authenticated parasyphilitic diseases. It is, of course, well known that tabes and general paralysis commonly occur in patients where the early symptoms of syphilis have been mild or even unnoticed. Among the cases of the juvenile form of general paralysis collected by Mott (1909) quite half were found to show no sign of congenital syphilis, but nevertheless to have been born of syphilitic parents and to have brothers and sisters who exhibited the ordinary signs of the disease.

It seems to me reasonable to think that many cases of idiocy should be classed with that form of syphilis which manifests itself alone by a selective toxic action on the elements of the central nervous system. I do not wish to attach an exaggerated importance to the results of the examination of the serum in one series of cases, but when it can be shown that a considerable percentage of idiots afford evidence of a syphilitic infection, and since it is well known that the virus of syphilis is capable of exercising a selective action on the central nervous system in cases in which there is no other evidence of the disease, I think it is not unreasonable to infer a causal relation between the two conditions.

Further evidence has been furnished by Atwood (1911), who examined 204 cases in America. A positive result was obtained by Noguchi's method in 30 cases (14·7 per cent.). The results of an examination of three cases which gave positive reactions were published by Bellingham Smith and Woodford (1911), and Chislett (1911) examined 14 idiots, 8 of whom gave a positive and 6 a negative reaction. Chislett also records the results of an examination of an entire family. The father had general paralysis of the insane and the Wassermann reaction was positive. The mother had no knowledge of the occurrence of any primary or secondary symptoms. She had had a tertiary ulcer on the left leg eight years after marriage. The eldest son, aged 16 years, was said to have been "very nervous and stupid at school." He showed no sign of syphilis, but gave a positive reaction. A girl, aged 12 years, was deaf in one ear, but otherwise normal. Her serum gave a positive reaction. A girl, aged 10 years, gave a negative reaction and appeared to be quite normal. A boy, aged 8 years, had rhinitis and conjunctivitis and gave a positive reaction. The two youngest

children, aged 6 and 4 years respectively, were healthy and gave a negative reaction.

Knöpfelmacher and Schwalbe (1912) examined 29 cases of hydrocephalus, 8 of which gave a positive reaction.

The results obtained in Denmark by Thomsen, Boas, Hjort and Leschly (1911) were very different. These workers examined 2061 feeble-minded persons, of which only 31 (1·5 per cent.) gave a positive reaction. On the other hand, E. Krober (1911) examined 262 idiots at the Hephata Asylum at Gladbach and obtained a positive reaction in 21·4 per cent.

Although the results obtained by different workers in different countries are not in entire agreement, sufficient evidence has accumulated to make it appear extremely probable that congenital syphilis is an extremely important cause of mental deficiency. It must be remembered that the majority of idiots who give a positive Wassermann reaction show no other sign of syphilis. They are, in fact, cases of latent syphilis, and we are aware that during the latent stages of the acquired disease only some 40 to 50 per cent. of the patients give a positive reaction. I am therefore inclined to think that the actual percentage of positive results obtained by examining a series of idiots by the serum test comes very far short of the number which are actually infected. If this assumption is correct, we shall have to recognise syphilis as the causative factor in a very considerable percentage of cases of idiocy. The problem appears to me to be worth further effort, and an examination of another large series of cases could hardly fail to afford interest. Particularly valuable information would doubtless be forthcoming if it were found possible to make an examination of all the members of a family in which a case of idiocy had occurred. In any case the results which I obtained in Berlin show that it is desirable to examine the blood-serum at the earliest possible age. The low percentage of positive cases obtained by some workers must in all probability be attributed to the fact that a large number of adult patients have been included in their results. I am inclined to think that an examination of a series of very young patients will give a very high percentage of positive results. Additional and valuable evidence will no doubt be obtained if it is found possible to include an examination of the blood of the parents.

We may classify the cases in which congenital syphilis is the cause of disease of the nervous system into three groups :

(1) The first group includes infants who are born with marked evidence of syphilis. In these cases the brain, together with other

organs of the body, is the seat of marked change. These children as a rule die within a short time of their birth.

(2) This group includes children who appear to be healthy at birth but which develop mental defects at the time of the second dentition or at puberty. To this group belong the cases of juvenile general paralysis.

(3) In this group may be placed those cases of mental deficiency, imbecility and idiocy in many of which the Wassermann reaction constitutes the sole evidence of a syphilitic origin.

It is well known that in many cases the syphilitic virus appears to exert a selective toxic action on the central nervous system, and we might expect this toxic action to exert its influence most injuriously during that period when the brain, the most highly specialised organ of the body, is undergoing development.

Syphilis is a wide-spread disease and there is no reason for supposing that its prevalence is on the wane. On the other hand, there is a very general belief that the type of the disease is changing. While the more obvious and gross manifestations of the disease are less often seen, there is reason to think that parasyphilitic disease is increasing. The connection between syphilis and general paralysis of the insane has been established. Is it not reasonable to think that further research may establish a connection between syphilis and other diseases, which at the present time are not suspected of a syphilitic origin ? The remote effects of syphilis may be even more numerous than we suppose. Organs other than the brain and spinal cord may be the seat of parasyphilitic disease. The Wassermann reaction affords a method by which this problem can be attacked, but it is obvious that results obtained by the serum test must be subjected to rigorous criticism. The occurrence of a positive Wassermann reaction in any one patient is in itself no proof that the condition which it is desired to investigate has been caused by syphilis. The presence of a syphilitic infection in such a case may be a mere coincidence. It is only after a very large number of cases have been investigated that the coincidence of a certain group of symptoms with a positive Wassermann reaction can justify us in forming an opinion. Such an investigation must be carried out on a large scale, for the examination of a very large number of patients is a necessary step to obtaining the required statistics. A commencement has been made, and the results obtained by the examination of patients with aortic disease may be here quoted.

Donath (1909) examined 27 cases of aortic insufficiency, aortitis

and aneurysm of the aorta. A positive serum reaction was obtained in 85 per cent. of the cases.

Bruckner and Galasesco (1910) obtained a positive reaction in 17 of 22 cases of aortic regurgitation.

Longcope (1910) obtained a positive reaction in 18 of 22 cases of aortic regurgitation.

These results are perhaps sufficient to show the possibilities of a systematic use of the serum test. The cases examined have, however, been too few for the results to be of real value, and in the majority of instances only those patients have been examined in whom a suspicion of syphilis was entertained.

An inquiry on broader lines is needed, and such an investigation should include the examination of cases in which syphilis is not suspected. By such means it might prove possible to enlarge our knowledge of the pathological changes produced by syphilis. An investigation on these lines has been undertaken by Churchill (1912), who has examined 102 infants and children, patients at a children's hospital in America. A positive Wassermann reaction was obtained in no less than 39 cases.

As regards the treatment of congenital syphilis it is obviously desirable that it should be commenced at the earliest possible moment. The serum test affords a means of early diagnosis and leads to the treatment of children in whom the disease is latent during the early years of life. Valuable information can without doubt be obtained by examining the blood of the mother during pregnancy.

Knöpfelmacher and Lehndorff (1910), who have devoted particular attention to this subject, have examined 135 mothers of syphilitic children and have obtained a positive result in 65·2 per cent. Of these 135 mothers 31 only showed definite signs of syphilis, while in the remaining 104 a diagnosis was only possible as a result of the serum test.

Stroscher (1910) obtained a positive result in 100 per cent. of the mothers of syphilitic children.

Mulzer and Michaelis (1910) found that 96 per cent. of infants with manifest congenital syphilis gave a positive reaction, while children with latent syphilis react like adults in the early latent period. They also found that 83 per cent. of mothers of syphilitic children gave a positive reaction. In an earlier paper Knöpfelmacher and Lehndorff (1909) reported 2 cases in which women after a series of syphilitic children gave birth to healthy children who in both cases were found to give a positive Wassermann reaction. Such cases must be regarded as cases of latent congenital syphilis, and it is in

such cases that the use of the serum test should have a special value in leading to early treatment.

Bimfel (1909) examined the blood of 230 mothers. Each was examined at least twice during pregnancy and once during the puerperium. Among 21 cases, in which there was a suspicion of syphilis, a positive result was obtained in 13 and a negative result in 8 cases. Eleven of the women who reacted positively gave birth to 3 children with symptoms of syphilis (serum reaction positive), and 8 children without symptoms (serum reaction negative). Eight cases of secondary syphilis were examined, and a positive result both in mother and child obtained in 7. Of 9 cases of latent syphilis all gave a positive reaction; in 6 of the children a positive reaction was obtained, in 2 a partial reaction.

If it can be established that congenital syphilis is a frequent cause of idiocy, it is reasonable to hope that very great success will follow the application of therapeutic and prophylactic measures.

We now possess in the Wassermann reaction a means of diagnosis which enables us to detect syphilis in cases in which it cannot be recognised by any other method. Wassermann has suggested that the serum test should be applied to every woman who is admitted to a lying-in hospital. When we consider the numerous cases in which syphilis is quite unsuspected we must admit the value of his suggestion. If a positive reaction was obtained, treatment of the mother would be commenced at once, and treatment of the child might begin from the earliest possible time after its birth. It can hardly be doubted that benefit would follow from the wholesale adoption of such measures.

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THE PREVENTION OF DEAFNESS IN CHILDREN.*

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There are two great classes of deaf children—those who have been born deaf and those whose misfortune it is to become deaf after birth. With the possibility of preventing the occurrence of deaf birth I do not propose to deal; it is largely a problem in eugenics, and, whatever the future may hold as to its solution (and I must confess to a certain hopefulness), it scarcely enters into the realm of practical politics at the present time. It is to the prevention of acquired deafness that I intend to devote this paper, considering first its causes and then offering certain suggestions as to the best means of fighting them.

The causes of acquired deafness.—The vast majority of the cases of acquired deafness belong to three groups of causes—the infective diseases, meningitis, and primary ear disease. Examining the

statistics of the London County Council Deaf Schools, the Royal School for Deaf and Dumb Children at Margate and the Fitzroy Square School, to all of which I am attached as otologist, I find 845 cases of acquired deafness of which the causes were definitely ascertainable. Of these, 723, or 85·2 per cent., come under these three groups, the numbers and percentages being:

Infective diseases . . .	343	47·4 per cent.
Meningitis	169	„ 23·5 „
Primary ear disease . . .	211	„ 29·1 „
	723	100·0

I must consider these three groups of causes in some detail.

The infective diseases.—The infective diseases which figure in these statistics are the infectious fevers—epidemic cerebro-spinal meningitis, chickenpox, diphtheria, enteric fever, German measles, influenza, measles, mumps, scarlatina, smallpox, typhus, and whooping-cough, with pneumonia, rheumatic fever, congenital syphilis, and tuberculosis. The figures shown by some of these teach an instructive lesson. The bulk of the cases owed their origin to scarlatina and measles, which gave 127, or 34·1 per cent., and 98, or 28·6 per cent., respectively; typhus, epidemic cerebro-spinal meningitis and smallpox only 3, or 0·8 per cent.; 2, or 0·5 per cent.; and 1, or 0·2 per cent. These three diseases are all well controlled by modern preventive medicine, so that, from the enormous percentages of deaf cases caused formerly by their ravages, they have now sunk to insignificant decimals. Is it not possible that a future generation may be able similarly to point to a like reduction in the numbers due to scarlatina, measles and diphtheria? At present the last-named disease accounts in my statistics for 13, or 3·7 per cent., and whooping-cough for 15, or 4·3 per cent.

Pneumonia claimed 23 cases, or 6·7 per cent., and 39, or 11·3 per cent., were due to congenital syphilis. As regards tuberculosis, only 2 cases, or 0·5 per cent., could be definitely traced to that condition. One of these was deaf after recovery from tuberculous meningitis, the other after tuberculous disease of the middle ear. It must be remembered that it is not compulsory for deaf children to come to school until the age of seven years, and that the relatively small percentage of cases due to tuberculosis is probably due to the fact that the disease usually kills the child before school age. It is probable, however, that a certain number of the cases of chronic middle-ear suppuration was due originally to tubercle, the mixed infection which supervenes masking the primary cause. Tuberculosis attacks

the ears of a considerable number of young children, and the small percentage noted must not be taken, therefore, as a criterion of the importance of the disease.

Meningitis.—Under the heading of meningitis are included cases definitely certified as such, together with those accounted for by the somewhat vague terms, "fits," "convulsions," "brain fever," "inflammation of the brain," and "congestion of the brain." All these cases showed nerve-deafness of a severe type. In some the meningitis followed an injury, and in many it had left some mental impairment as well as the loss of hearing.

Primary ear disease.—The 211 cases of acquired deafness due to primary ear disease are divisible into two main types of middle-ear conditions—suppurative and catarrhal. Of the first there were 106, or 50·7 per cent., of the second, 104, or 49·2 per cent. The odd case was an instance of the condition known to otologists under the somewhat vague nomenclature of "otosclerosis," and may be ignored in this discussion. The salient and instructive feature of the suppurative and catarrhal cases is that the vast majority of them were primarily due to nasal causes, mostly adenoids, and were therefore eminently preventable. The serious nature of this statement is enhanced by the fact that these children were all suffering from deafness of a degree sufficiently advanced to necessitate their education in special schools. The matter becomes even more serious when we reflect that there are numbers of children being taught in hearing schools who present lesser degrees of deafness from similar causes, that is to say, *preventable* causes. Many of these children are doomed to progress in later life to a degree of deafness that must seriously interfere with their career as efficient citizens. This can be prevented by timely treatment in childhood. Therefore the matter is an urgent one and I shall return to it again shortly. School medical inspection is getting into touch with these children, it is true, but school medical inspection is not of very long standing in this country and has scarcely got into its swing.

Types of deafness in infective diseases.—Reverting for a few moments to the first group of causes it will be well to consider how the deafness arises in the infective diseases. These cases may be classified into three groups—suppurative and catarrhal middle-ear disease and internal ear, or nerve-deafness. Most of those coming under the first two heads are preventable by proper care of the nose and throat during the course of the disease or by prompt treatment of ear complications when they arise. Even those severe types of suppuration which sometimes occur in scarlatina and diphtheria, in

which the temporal bone is attacked by a suppurative osteitis, can be saved as regards the hearing by timely operation, as the excellent work done by Dr. Knyvett Gordon demonstrates. On the question of the third class of case—the nerve-deafness type—it is a little difficult to speak decisively. Some of them, however, could be saved by prompt treatment. Many ears, also, could be saved that are attacked by tuberculosis, but this is a question of broader range, and I do not propose to deal with it specially here. The question of congenital syphilis, in which the deafness is of internal ear type, is another question of wider significance with which it is not possible to deal in a paper like this.

The results of deafness in children.—I must allude briefly to the results of deafness in children from the educational point of view. A great deal has been written upon this matter of late years and the question is a very serious and important one. Whatever may be the terrors of blindness to the adult and however much more serious the affliction of loss of sight may be to grown-up persons as compared to loss of hearing, that affliction pales when it is contrasted with deafness in the child. The blind child who is a hearing child has still the ear, the most important educational portal, open to him. He can still learn to speak and so communicate with his fellow-creatures on an equal footing as regards thought processes. But the deaf child is immeasurably worse off, for, unless he is taught by highly specialised methods, he must remain dumb, with greatly limited methods of thought. Hence the prevention of deafness in children is a thing of vast importance in education. But the prevention of deafness in children goes much further than this. A long study of deafness in adults proves that the majority of its causes comes into operation in childhood, and the best way of preventing deafness in the prime of life is to have a practical knowledge of otology as it relates to the child and to forestall adult deafness by using that knowledge to the best advantage. Unrecognised and untreated nasal conditions, especially adenoids, in the child, although they may not result in ear complications at that period of life, are often slowly and silently, but as surely, working towards deafness in later years. The germ of adult deafness lies hidden in such conditions; the train is laid, and the explosion is only a matter of time. This, then, is the hour for prevention, for—

> "The moving finger writes, and having writ
> Moves on. Nor all thy piety nor wit
> Can lure it back to cancel half a line,
> Nor all thy tears wash out one word of it."

Surely the proper course to pursue is to prevent the finger from writing.

Suggested methods of prevention.—I have endeavoured to be brief in setting before you the factors which, under present conditions, make for deafness in children; it now remains to offer for discussion, with equal brevity, suggestions as to the best method of meeting those factors with a view to the prevention of the deafness likely to result from them. I trust that those who speak will amplify them and add to them.

Better care of ears.—The first task which lies before us is to endeavour to ensure a better care of the ears in infancy and childhood. This includes the operation of all measures of hygiene, feeding, pure milk, fresh air, etc., that tend to the better care of infants and children generally and to the prevention of those diseases which, as we have seen, lead to the development of affections of the ear, nose, and throat. It also includes better care of the ears when diseased. The work of Dr. Knyvett Gordon, to which allusion has already been made, shows how much can be done to save the hearing in ears attacked by the infectious fevers, and, as he recommends, an otologist should be attached to every fever hospital. Were this done the percentage of serious cases of deafness and middle-ear suppuration due to scarlatina, measles, diphtheria and allied diseases would very soon diminish. To this I would add the making notifiable of all forms of meningitis.

As I have said, school medical inspection is getting into touch with those children whose ears need attention. The school doctor can indicate them as requiring treatment, but there his function ceases. The great difficulty appears to me to lie in making sure that treatment is carried out. Granted that the child has been earmarked for treatment by the school doctor and that the parents have consented thereto—

How is treatment to be obtained? If parents are willing, so much the better; for those who are not willing the Children's Act may have to be used to persuade them, which means, sometimes, loss of precious time. But, granting that the child is to have treatment, how is it to be obtained? He may be taken to a hospital or to the parent's private practitioner, and it may be assumed that he obtains adequate advice. Here comes the difficulty in dealing with ear cases, and especially with suppurative ear cases—how is that advice to be put into practice? An operation may be performed, but in many cases its mere performance is not enough. The cause may be removed but the effect has to be dealt with. Discharging ears need

appropriate treatment; catarrhal ears require inflation. The former must have constant and regular cleansing if they are to be relieved, and this cannot be done properly at home. Nor can such cases be dealt with efficiently at hospital or by the private doctor, for the parent can afford neither the time for daily visits to the one nor the fees for them to the other.

The need for school clinics.—These cases of chronic discharging ears are the *bêtes noirs* alike of the private practitioner and of the hospital out-patient clinic. They should be treated either by skilled nurses, under medical direction and inspection, who attend certain schools or centres daily, or they must be arranged for at a school clinic. Personally I am of opinion that the school clinic must come, because it is the only really practical way out of the difficulty of dealing with the discharging ears of school-children.

But, important as it is adequately to deal with deafness and diseases of the ear in children who are already at school, we must go much farther than this if we wish seriously to endeavour to avert the heavy affliction entailed by loss of hearing. We must go to the infant before school age. I have pointed out that the great majority of the primary ear diseases—middle-ear suppuration and catarrh—arise from nasal causes, chiefly adenoids, not including, let it be understood, those due to infectious fevers.

Effects of adenoids.—Adenoids, even if the middle ear escapes implication by extension or infection, even if they disappear as the child reaches puberty, may leave behind them a chronic catarrh of the post-nasal space or adhesions about the openings of the Eustachian tubes which hamper the normal movements of those openings and so bring about a progressive deafness in later life. It is, therefore, in the early years of the child that we must seek to prevent deafness. We must make sure that the child's post-nasal space is kept free and unaffected by disease. It must be remembered that this space behind the nose—the naso-pharynx—is the anatomical meeting-place of several passages. Into it open the Eustachian tubes leading to the ear, the nasal chambers, the cavity of the mouth, the food-and air-passages, so that it is a centre from which, or to which, infection can spread.

The treatment of adenoids.—Adenoids, which may be in themselves a very fruitful source of infection, must therefore be treated consistently and conscientiously. Not only must they be removed with care and thoroughness, but the catarrhal troubles which they leave behind must also be treated. It is not enough to remove these growths and expect everything to go well, but after-treatment must

be followed out to relieve any pharyngitis or rhinitis that remains. Everything must be done to ensure a free and healthy air-way through the nose, which alone is adapted to the physiological preparation of the air in respiration.

Prevention of adenoids.—But again we must go farther: we must do our best to prevent the occurrence of adenoids by proper hygiene of the upper air-passages, fresh air, proper education in the use of the pocket-handkerchief and the avoidance of conditions likely to lead to the formation of the growths. Most people now know something of the importance of respiratory exercises in the development of nasal breathing, but few realise how important these exercises are in infant life. It is in the very young child that the genesis of defective respiration must be studied. In the suckling infant, if he breathes only by the mouth, not only do the nasal cavities not develop, but they may even retrogress, and the child who does not unconsciously devote several hours a day to nasal respiratory exercises cannot, and does not, profit completely by the advantages of a normal nose.

Dangers of improper artificial feeding.—The intensity of the respiratory exercises can be seen by those who will watch the infant at his mother's breast. In the normal child, fed naturally, the prolonged current of air that passes through the nasal cavities during the act of sucking regulates the circulation of blood in the nose, and, as it were, cleans the nasal fossæ. In the child fed artificially, unless precautions are taken to regulate the sucking and the proper use of the air, dust and microbes of all kinds will stagnate upon the badly irrigated mucous membranes, giving rise to repeated inflammations of the naso-pharynx, which bring about disturbances in the nutrition of the tonsil situated in that space, and the enlargement of which gives rise to adenoids. Hence, in badly conducted artificial feeding and in the use (or rather, abuse) of the pernicious and abominable "comforter" there is a fruitful factor in the occurrence of adenoids. Recently, Barraud, of Lausanne, has pointed out that a great majority of adenoid cases occurs amongst the artificially fed, and a minimum in countries where normal maternal feeding is most common. This furnishes one reason more—and a very strong one—for advising all mothers to do their maternal duty and become complete mothers whenever it lies in their power to do so. However well artificial feeding be carried out it can never be considered as other than a makeshift. It has been often asked why adenoids appear to be more common than formerly, and why they are more often found amongst town dwellers and in manufacturing countries

than in agircultural districts, and in Anglo-Saxon countries than in Spain and Italy. You have just heard the answer.

Better education in prevention of deafness.—Thanks to the ceaseless toil of those who work in the cause of scientific research, the past decade has given us a sound knowledge of the conditions which lead to deafness and diseases of the ear in the child and the adult. How are we to disseminate that knowledge, acquired by much hard labour, and to ensure that it may lead to practical results and so discharge the debt of gratitude we owe to those who have indicated to us the path to be followed; we can do this by educating teachers and mothers. To attain this end, however, there must be a more complete realisation on the part of the medical profession generally of the importance of deafness and of the vital necessity for preventing it in childhood. It is one matter to *know* a thing; it is quite another matter to *realise* it. The seed must be planted when the soil is best fitted to receive it and that time is when the doctor is a student. I would urge the importance of teaching the broad principles of otology, especially as they affect the child, to every student of medicine, making a sound, practical knowledge of them one of the essentials to qualification. No doubt the burden of an expanded curriculum is already heavy for the student, but my suggestion would not add very much to it, and the knowledge would be implanted when the mind is fresh and eager. It is the things that are learned during our student days that sink deepest and become habits. We could thus ensure that the general practitioner would be in a better position early to recognise the threat of ear disease and the necessity for the prompt calling in of expert assistance. Effective prevention can only be attained by anticipation, which means ceaseless vigilance and prompt interference.

Education of teachers.—The elementary school teacher possesses no small potentiality for helping us in the fight against acquired deafness. Every teacher of school-children can help the parents of his charges and persuade them for their children's good. Therefore, every teacher should be to some extent a physiologist. We could place this power in their hands by giving them some knowledge of the causes which lead to deafness and of how to recognise them. This is being done for the teachers of the London County Council by lectures on the care of the ear, nose and throat, so that they may have the opportunity of becoming fully alive to the opportunities presented to them for the prompt recognition of threatened ear disease during school life.

Education of mothers.—In the pre-scholastic period of the child it

is the mother who is responsible for the care of her children's ears; when the child goes to school, that responsibility is shared by the teacher. Among parents there is much ignorance and superstition, often a good deal of apathy and indolence to be met. As Bishop Boyd Carpenter has recently pointed out, it is parental ignorance that is continually barring the way to our efforts for the good of the child, the child who is to follow us as the citizen of the future, to whom we have to entrust the honour of keeping unsullied a glorious past. But, in many cases, ignorance and superstition can be dispelled, and apathy and indolence can be overcome by the education of the mother. Every good mother is willing and wishful to learn what is best for her child if she is only approached in the right way. The instinct is there; it only wants a little guidance. In the 'Sixth Annual Report of the Borough of St. Marylebone Health Society' it is noted that the number of cases of epidemic diarrhœa during the exceptionally hot and trying summer of 1911 was noticeably small, and the death-rate from that disease was smaller than that of any other Metropolitan borough. This was due largely to the education given to the mothers by the Society—a teaching which was appreciated and welcomed by them. If a result so gratifying can be attained in one department, it can be reached in another. Arrangements are being made to teach the mothers of St. Marylebone the elementary principles of the care of children's ears and I believe that this will be attended with a like success.

The National Bureau.—Among the many bodies that exist for the dissemination of principles of hygiene, there has recently been inaugurated the National Bureau for Promoting the General Welfare of the Deaf. If that bureau, which has just completed its first year of activity, can see its way to help in the prevention of deafness as well as in promoting the general welfare of those already deaf, it will assist in a grand work and will have a great and useful future.

MASSAGE IN WASTING DISEASES OF CHILDREN.

By J. M. MacPhail, M.B., Ch.B.Edin.,
Medical Officer to the Eastern Dispensary, Bath.

The study and care of the infant are receiving so much attention at present that a few facts in connection with the successful treatment of some extremely wasted babies in one of the workhouse infirmaries may be of interest.

It has long been remarked that children often thrive badly in a hospital ward in spite of the fact that the conditions seem better than in their own homes, and the reason is, I think, that they do not get so much nursing as they have been accustomed to at home. This applies more particularly to workhouses, where the nursing staff is usually inadequate, and the same conditions occur in those cases where the mothers work in the factories all day and leave the nursing of the child to the chance ministrations of the kind neighbour.

When a child lies in a cot all day it leads a more or less vegetative existence, with sluggish circulation and respiration, and it is quite evident that it will not thrive so well as the well-nursed child, which moves and is moved about in the mother's arms and is exercised generally. Hospital babies when noticed or spoken to usually lift up their arms, expecting to be carried, but too often they have to lie contented where they are.

In the workhouse we often found that children who were doing badly in the children's ward seemed to pick up at once when transferred to an adult ward, and the reason was that they then received plenty of petting and nursing. In many unions they get the "grannies" to look after the babies, and often with conspicuous success.

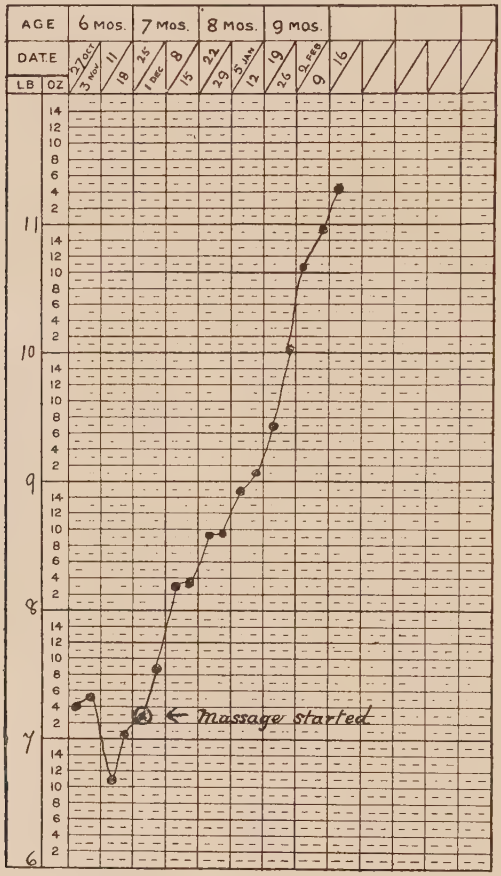
As some of the babies did badly in spite of everything I made up my mind to use general massage as a substitute for the natural form of exercise. The children in the ward were being rubbed with cod-liver oil as a routine treatment, and those that were doing worst I massaged, using cod-liver oil as a lubricant.

The massage was general, lasted half an hour, and searched out all the muscles in the body. To ensure a better circulation and to prevent stagnation in the lungs, I did artificial respiration by the Schäfer and Sylvester methods, and as the children often cried thorough lung expansion was assured. The general and local conditions speedily improved. At first a general dusky redness was produced by the friction, due to lack of vaso-motor tone, but after a few days this dusky redness did not appear, and in one to two weeks' time the pink glow of health was induced. The muscles became firmer, the motions became less frequent and improved in consistence, the child ate and slept better and usually dropped off to sleep after the treatment.

Case 1 ("Doris").—Doris had suffered from diarrhœa, and when I saw her first she was six months old and weighed 7 lb. 4 oz. She got gradually weaker, and when massage was started on November

the 25th she was seven months old and weighed 7 lb. $2\frac{3}{4}$ oz. At this stage she was unable to cry properly, could scarcely lift her arm, but lay in bed moaning and with a wrinkled-up face, shrunken skin, big belly, sunken fontanelle, head-retraction and subnormal temperature.

CHART 1.

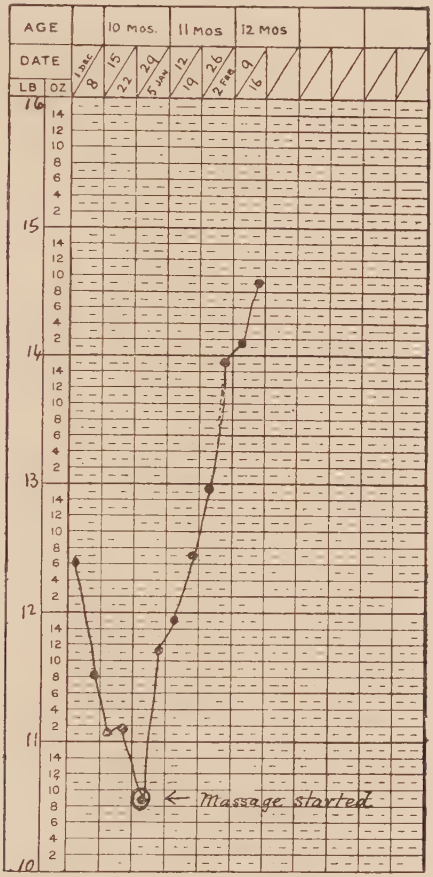


She speedily improved, and by a week's time her muscles were able to resist somewhat. Her motions became less frequent, her appetite and digestion improved, and by the time I finished the treatment she was able to digest bread-crumbs and gravy. Her muscles were firm and hard, and she smiled and chattered all day long and had a strong, healthy cry.

Under the treatment she put on 4 lb. 2 oz. in twelve weeks, and had advanced from 7 lb. $2\frac{3}{4}$ oz. to 11 lb. 5 oz (*vide* Chart 1).

Case 2 ("Ivy").—Ivy was a markedly rickety child with a well-marked rickety rosary and rickety curved tibia. She was aged 10½ months and weighed 10 lb. 8½ oz. She had two teeth, flabby muscles, flatulent distension of the intestines, and three to four loose motions in the twenty-four hours. She was very pale, took her food badly, and took very little interest in her surroundings.

Chart 2.



I began massaging her on December the 29th and she speedily improved in every respect. The rickety rosary became less and less marked, and by the end of a month was scarcely discernible. Her appetite and digestion improved and she began to smile and chatter. She gained 4 lb. 1 oz. in seven weeks, and advanced from 10 lb. 8½ oz. to 14 lb. 9 oz. (*vide* Chart 2).

Other cases were treated similarly and all seemed to improve, but

these two cases were the most successful, and the effect on the local and general condition was so marked that I was able with confidence to trace cause and effect.

Now, both of these children improved without any alteration being made in their diet, so that it was evidently not the food that was wrong but the assimilation of the food. Also the children had been rubbed with cod-liver oil before, but picked up at once when massaged, so that in their case at least the rubbing was of more importance than the cod-liver oil.

Massage has received a great deal of attention in nervous diseases and in surgical conditions, but I think that in wasting diseases it is an undeveloped subject, and that in wasting diseases of children it might effect an improvement when the nursing and natural exercise had been defective.

The Royal Society of Medicine.

EPIDEMIOLOGICAL SECTION.

April the 26th, 1912.

Bed Isolation of Cases of Infectious Diseases.—Dr. C. Rundle related his experience of treating the following diseases in one ward at the Fazakerley Hospital in Liverpool:

(1) Cases of puerperal fever, erysipelas, rubella, and varicella.
(2) Cases found not to be suffering from infectious disease.
(3) Doubtful scarlet fever or diphtheria cases.
(4) Cases requiring operative treatment in which the treatment may be prolonged.
(5) Cases of diphtheria or measles when the wards receiving these patients are pressed by a sudden rise in the incidence of the disease.
(6) Cases of epidemic diarrhœa.

The number of cases admitted to the ward in the course of two years was 741, and of these only two developed an infectious disease while under treatment. In one case of rubella scarlet fever was acquired from a four months' case complicated by otorrhœa, while the other admitted with mild faucial diphtheria was secondarily infected with the same disease. Tables are given of the number of different diseases, varying from six to thirteen. treated concurrently at various periods.

The question of aërial transmission of infectious disease was discussed, especially in relation to varicella, and it was shown that forty-one cases of this disease had been treated in the pavilion, but no cases of cross-infection occurred. But in the ordinary wards varicella had been introduced on twenty-one occasions during the same period. Precisely the same opportunities existed for aërial infection in both cases. In the experimental pavilion contact infection was prevented, but not in the ordinary wards. If varicella was an aërially conveyed disease it must presumably be so by transmission

of small portions of the scabs, but in that case return cases would be common, whereas they are practically unknown. The idea that the staff might develop mild and unrecognised types of infectious diseases and so act as carriers was refuted; only one out of a staff of fifty-five developed an infectious disease.

The number of articles retained for individual patients was reduced as far as possible. Feeding and other utensils were taken from a common stock and sterilised after use. Hand-washing was regarded as of final importance, and to prevent this becoming perfunctory the basins were situated in the middle of the ward and not at the bedside.

The system presented many difficulties. It required a highly trained and intelligent staff. It was necessary that scarlet fever cases with infectious complications should stay for long periods in bed, but the system was justified from the fact that of 214 patients treated in the same ward with 527 infectious cases none contracted an epidemic disease.

LARYNGOLOGICAL SECTION.

May the 3rd, 1912.

Chronic Œdema of Fauces and Larynx in a Boy.—Mr. H. Lambert Lack showed a boy, aged 12 years, who had been attending the London Hospital for nearly five years, during which time the condition had remained practically the same. The uvula, which was as large as a finger, was removed, but merely showed round-celled infiltration. The stump of the uvula was seen thickened, the pillars of the fauces were œdematous, the epiglottis was considerably swollen, and the arytenoids, especially the left, were extremely œdematous. Though the boy had suffered from nodes on the bones seven years ago and gave a Wassermann's reaction, anti-syphilitic remedies were of no avail. The diagnosis was doubtful.

Epignathus or Teratoid Tumour of the Nasal Septum and Base of the Skull.—Mr. G. J. Jenkins showed a female child, aged 1½ years, with a teratoid tumour filling up the cleft of a cleft palate, involving the whole of the soft and posterior half of the hard palate. The tumour was free posteriorly, but anteriorly its mucous membrane was continuous with that on the premaxillary portion of the palate. In the middle of the buccal surface of the tumour was a projecting tooth with a crown like an irregular molar. There was coloboma of the iris. No other deformity. She took food well, snored badly when asleep, and often had bronchitis.

Instruments to Facilitate Per-oral Tracheo-bronchoscopy.—Dr. William Hill showed a large funnel-shaped endoscope. A lateral slot permitted binocular vision and easy instrumentation in operations on the larynx, and also facilitated rapid passage of a tracheoscope or bronchoscope in (1) Dyspnœa from spasm during operations on larynx; (2) per-oral tracheo-bronchoscopic explorations, in which there was difficulty in finding the laryngeal vestibule; (3) temporary spasmodic dyspnœa supervening on anæsthesia in laryngeal and tracheal obstruction.

Dr. Hill had successfully employed an adult slotted laryngoscope in quite young children for laryngeal operations as well as to facilitate tracheo-bronchoscopy.

ODONTOLOGICAL SECTION.

May the 20th, 1912.

Extraction of Teeth from a newly born child.—Mr. Carl Schelling.—The patient was a healthy female child born with two lower central incisors. Extraction was performed, as the mother wished to nurse the infant, which was her firstborn.

Mr. J. G. Turner showed the model of a case in which the child was born with a lower central incisor erupted. The tooth was only a partly formed crown and fell out in a few days. He had the model of a child born with two lower central incisors, which were still present at the age of fourteen years.

Philadelphia Pediatric Society.

May the 14th, 1912, Theodore Le Boutillier, M.D., President.

The Advantages of Certified Milk.—Dr. Henry L. Coit, of Newark, N.J., delivered an address upon this subject by invitation.

Dr. Alfred Hand, jun., said that the work of the Milk Commission of the Philadelphia Pediatric Society was begun twelve years ago, after a year of study of the conditions of milk-production by a Committee specially appointed for the purpose. Following somewhat the lines of Dr. Coit's Commission in Newark and being the third in point of time, it was the first to issue certificates to more than one dairy, as the New York and Newark Commissions limited their certificates to the product of one dairy each. The original requirements of the Philadelphia Commission were drawn up by people who knew nothing about the practical side of milk production, but it was interesting to note that the strictness of those requirements had not been lessened in any way and that the producers themselves admitted that the aim was good. It would be almost possible to lower the bacterial standard from 10,000 germs per cubic centimetre to 5000 without causing any hardship to the dairies at present receiving the Commission's certificates. After several years' experience it was found that the proteid percentage showed such insignificant variations that a monthly estimation was unnecessary, and it was abandoned, thus making it possible to have weekly bacterial counts instead of a single monthly count. This was of much greater help to the dairyman. The Commission originally certified to 4 per cent. fat milk, 5 per cent. fat milk and pasteurised milk, but this occasioned confusion, and for several years the certificates had been limited to 4 per cent. milk and 16 per cent. cream. The veterinarian was usually charged with the duty of inquiring after the health of the workers at his monthly visit, but this was felt to be inadequate, and physicians residing near the dairies had now been appointed as medical inspectors. When any sickness occurred among the workers or their families the superintendent of the dairy notified the medical inspector, who communicated with the physician in attendance and ascertained the nature of the disease, reporting

to the secretary of the Commission. In past years the Commissioners had visited the dairies when the spirit moved them; now the Commission consisted of ten members; attendance at each monthly meeting was required, and a certain number of absences automatically erased a name from the list and a new member was appointed; each member was also assigned to a dairy each month and was expected to visit that dairy some time in the month and report as to its condition at the next meeting of the Commission. Some of the results of the work of the Commission during the past twelve years were that 2 per cent. of Philadelphia's milk supply was certified, and that the example had been of help to many other commissions which had been established over the country.

Dr. Arthur Newlin said that, as Secretary of the Milk Commission, he had received verbal criticisms from time to time of the products of the various dairies whose milk was certified by the Commission. The Commission invited criticism, but criticism given in that manner was of little value. They wanted facts, and facts in writing. During the past year he had received but one written communication concerning the milk. If a letter was received giving exact facts, with dates, the communication would be of inestimable value to the Commission, as the information could be followed up, and if wrong conditions were found they could be corrected.

Dr. Le Boutillier said that, for unknown reasons, the greater portion of the physicians of that city knew so little about certified milk that they apparently did not believe in it or recommend it to their patients. There was no doubt that babies were saved from serious illness by its use, especially in the heat of the summer. It was most important that physicians who knew its value should teach other physicians to realise the benefits to be secured by using certified milk.

Dr. W. N. Bradley said that, while not bearing directly upon the certified milk question, there was one thing greatly needed—improved transportation facilities which would insure the delivery of the milk very much earlier than at present. It was usually three days old before reaching the consumer. To that end every effort should be made to secure from the railroad companies more co-operation, as, aside from contamination due to handling, milk showed an increasing number of bacteria in proportion to its age.

Dr. S. McC. Hamill stated that, while certified milk might be delivered late, it was never three days old before reaching the consumer. The railroads began the use of refrigerator cars last year. Milk ought to be delivered in the afternoon of the day on which it reached the city, not the morning of the next day, as was the Philadelphia custom.

Dr. R. S. McCombs suggested as the best charitable action of which he could think that certified milk be procured and given to dispensary patients at low cost; thus the babies would get good milk, and the good results achieved by such means would far outweigh the cost; in comparison with o her charitable works the real good accomplished would be manifold.

Dr. H. Brooker Mills spoke upon the necessity of teaching medical students the value of certified milk, and reported having spent one hour during the past session at the Medico-Chirurgical Hospital explaining its advantages to students, urging its use by them in practice. He felt that perhaps they were being too enthusiastic over the various percentage methods of milk modification, causing them to lose sight of the many advantages of good, plain, clean whole milk.

Société de Pédiatrie, Paris.

May the 14th, 1912. (Bulletin No. 4.)

Treatment of Hernia in Infants.—M. Savariaud considered operation permissible, and almost always indicated after the age of six months. The operation is delicate but simple, and the results perfect; the hernia is cured in twenty-four hours. The condition may be cured by a truss if worn continually, but its application, difficult even in big children, is all the more so during the first year of life. Spring trusses cannot be employed owing to the delicacy of the skin, while an indiarubber air-cushion pad is inefficacious and causes excoriations.

Patchy Adipose Sclerema.—MM. Triboulet, Ribadeau-Dumas and Debré showed a girl, aged 5 weeks, who had been brought to the hospital shortly after birth on account of small nodules and indurated masses of subcutaneous cellular tissue, some beginning to soften, on the face, neck, upper limbs and trunk. Examination showed a certain degree of eosinophilia (9 per cent.). Exploratory puncture into the softened mass drew off a thick brownish fluid, rich in fat and cellular *débris*, and absolutely sterile. One of the small lumps, examined histologically, showed clearly an alteration in the subcutaneous tissue—the fatty lobules were very abundant, enlarged and modified. In fact it was a condition of adipose sclerema.

Facial Paralysis in a Girl following a Fall.—MM. G. Variot and E. Bonniott reported the case of a girl, aged 10 years, who fell while climbing on the back of a chair. Typical peripheral facial paralysis ensued on the left side.

A Family of Achondroplasics.—M. Triboulet and Mlle. de Jong read notes and showed photographs and skiagrams of a brother and sister, aged $14\frac{1}{2}$ and 23 years, both achondroplasic. The mother was of medium height, their father 1·47 metre high and achondroplasic, judging from a photograph and other investigations. A similar dystrophy attacked a younger brother; two other children, the second and third, were well formed.

Urea in the Cerebro-spinal Fluid of Infants affected with Gastro-intestinal Disturbances and Sclerema. — MM. Nobécourt, Sevestre and Didot investigated the quantity of urea in the cerebro-spinal fluid of fourteen infants, from one to ten months old. In five it was under 0·40 grm. per litre, the cases being epidemic cerebro-spinal meningitis, microcephalic idiocy, tuberculous meningitis, cachexia of unknown origin, and an acute meningeal case. In another five, comprising cases of pneumococcal arthritis, hereditary syphilis, chronic gastro-enteritis, and broncho-pneumonia, it varied from 0·40 grm. and 0·60 grm. per litre. In two cases of subacute gastro-intestinal affections it contained about 1 grm. In another two cases of gastro-intestinal disturbance with sclerema it varied between 1·70 grm. and 3·77 grm. There was no retention of chlorides. These last four cases had more or less pronounced albuminuria. Clinical observation did not support the idea that the retention of urea was attributable only to insufficient urinary excretion. In one of the cases the kidney merely showed sclerosis of a few of the glomeruli, while the liver showed marked changes. The condition seemed due to an over-production of urea and disturbance of liver formation.

Necrotic Angina in Scarlet Fever; Bacteriological Study.—MM. E. Weill and Dufour described the case of a boy, aged $2\frac{1}{2}$ years, admitted with scanty eruption, membranous angina, and nasal discharge; no diphtheria bacilli. On the eighth day there was sloughing and perforation of the soft palate, enlarged glands, and double suppurative otitis. Improvement began on the thirtieth day, but recovery was not complete till two months after the onset. The authors found an anaërobic streptococcus, *Bacillus radioformis*, and a bacillus analogous to the *perfringens* and classed among the septic vibrios.

Foreign Bodies in the Air-passages.—M. Abraud related a case in which he had removed the handle of a mouth-organ from the bronchus. There had been complete absence of signs of suffocation and cough. This tolerance was characteristic of foreign bodies in the bronchus, while in the trachea they produced immediate and marked disturbance.

Vincent Dickinson.

Abstracts from Current Literature.

Medicine.

Sensory reactions in the newborn (*'Journ. Nerv. and Ment. Dis.,'* 1912, xxxix, *p.* 125).—**F. Peterson,** during a period of fifteen months, conducted a collective investigation into the mental life of 1060 newborn children at the Lying-in Hospital of the City of New York, with the following results: (1) Sensibility to light was present at birth in most infants. (2) Sensibility to receive sound was equally developed. (3) The gustatory nerve reacted differently to salt, sweet and sour at birth. (4) 207 normal children reacted to odours on the first day. (5) Reactions to touch, temperature and painful stimuli were obtained in a large number of normal children on the first day. (6) The newborn frequently reacted to thirst-hunger on the first day. (7) There were good grounds for believing that the newborn child came into the world with a small store of experiences, associated feelings and shadowy consciousness. (8) There were no perceptible differences between white and coloured children or between pairs of twins. As sensibility to light, sound, taste, odours, touch and pain were also present in premature children, it followed that the corresponding nerves were prepared to receive impressions even before the end of the normal period of birth.

J. D. Rolleston.

Thermometric investigations in the newborn (*'Thèses de Paris,'* 1911–12, *No.* 239).—**A. Devilliers.**—This thesis is based on observations made at the maternity department of the Hôpital Boucicaut in Paris, and contains brief records of twenty cases. The conclusions are as follows: The temperature of the newborn immediately after birth is always higher than that of the mother and subsequently drops. This fall is more marked and persistent in the premature. The temperature subsequently rises, reaching normal in the full-term child in a period ranging from ten to forty hours, and in the premature in from two to twenty days. The fall is due to the infant's incapacity to produce sufficient heat owing to incomplete development of its organs, and especially owing to insufficiency of the heat-regulating centres. When the temperature has reached 98·6° F. it becomes stationary. This so-

called monothermia is due partly to the infant's feeble degree of muscular activity and partly to the lesser amount of stimulation of the heat-regulating centres than in the adult. Disappearance of monothermia indicates a pathological condition. The temperature in the infections of the newborn is variable and irregular, hypothermia being usually found in the premature and hyperthermia in the full-term child. Obstetrical trauma may cause a slight rise of temperature in the infant during the first fifty hours after birth.

J. D. Rolleston.

The temperature of premature children (*'Jahrb. f. Kinderheilk.,'* 1912, lxxv, *p.* 232).—**F. Masay** finds that in these children the temperature after birth falls very rapidly with no tendency to rise. He believes that the inability of these children to regulate their temperature is not exclusively confined to hypothermia but is extended to hyperthermic phenomena, of which an immoderate reaction to external influences or an elevation of the external temperature are the fundamental reasons. The want of regulating power of the temperature is due to defective development of the thermotaxic centres and the feeble development of fat.

F. R. B. Atkinson.

Resuscitation of asphyxiated infants by the insufflation method of Meltzer and Auer (*'Am. Journ. Dis. Child.,'* 1912, iii, *p.* 50).—**E. Planchu** has employed the apparatus for intra-tracheal insufflation with marked success. The apparatus is as follows: (1) A rubber bulb; (2) a T tube, one branch of which is united to the bulb, another to a mercury manometer, and the third to a rubber tube ending in a metal cone; (3) a gum catheter, No. 12. A rod of soft copper is inserted into the catheter. The end of the catheter must reach the bifurcation of the trachea. For a child weighing 2000 grm. the distance is 8 cm.; 3000 grm., 10 cm.; 4000 grm., 12 cm. The operation is performed in the following way: The mucus in the throat is removed by a finger or sponge and the infant wrapped in a warm blanket and placed on the table, the neck in slight hyperextension. The left index finger is introduced as far as the upper end of the œsophagus and the catheter containing the copper rod inserted. When the catheter has reached the proper distance, the copper rod is removed and the catheter attached to the insufflation apparatus, and air injected by the rubber bulb; the pressure must not exceed 10 or 15 mm.

F. R. B. Atkinson.

A study of icterus neonatorum by means of the duodenal catheter (*'Amer. Journ. Dis. Child.,'* 1912, iii, *p.* 304).—**Alfred F. Hess** records that tests by means of the duodenal catheter show that bile is very rarely excreted during the first twelve hours of life; it was obtained but once in the course of fifty-two tests. Bile excretion during the subsequent twenty-four hours is variable; in cases of marked jaundice it is profuse; in cases not jaundiced it is scanty or absent. The function of excretion gradually becomes fully established during the first week or ten days of life. Where jaundice manifests itself it precedes the excretion of bile into the duodenum. Secretion of bile varies within wide limits. In general it is marked when the jaundice is marked. The occurrence of jaundice results from a defective correlation of excretion and secretion. It is generally caused by the inability of the rudimentary excretion to cope with the sudden profuse secretion of bile.

Frederick Langmead.

Familial icterus gravis in the newborn (*'Arch. f. Kinderheilk.,'* 1911, lvi, *p.* 313).—**C. May** records a family in which four children, one male and

three females, died on the third, fourth, sixth and thirteenth days of life with symptoms of malignant jaundice. The parents were healthy, and there were no signs of syphilis nor septic infection. J. D. Rolleston.

Tetanus neonatorum (*'Amer. Journ. Obst.,'* 1912, lxv, *p.* 1076).—**W. H. Jordan.**—A Jewish child was circumcised when a week old by the mohel, who wore a soiled apron, and sharpened his blunt knife on a slate in the yard. In three days symptoms of tetanus developed, and in spite of tetanus antitoxin death took place a week later. J. D. Rolleston.

The ætiology and treatment of the so-called hæmorrhagic disease of the newly born (*'Am. Journ. Dis. Child.,'* 1912, iii, *p.* 216).—**Oscar M. Schloss** and **Leo J. I. Commiskey** report three cases of this condition, and give the result of their investigation of the coagulation of the blood in ten. They come to the following conclusions: (1) In the hæmorrhagic conditions of the newly born the coagulation of the blood may be normal, delayed, or absent. (2) A deficiency or absence of thrombin or fibrinogen may give rise to imperfect coagulation of blood and uncontrollable hæmorrhage. (3) In some cases of hæmorrhage in the newly born in which blood-coagulation is apparently normal, it seems probable that the hæmorrhage is due to some localised vascular lesion or defect present only in the areas from which the bleeding occurs. (4) The subcutaneous injection of whole blood is harmless, and is apparently of value in the treatment of the hæmorrhage. Frederick Langmead.

Hæmorrhagic disease of the newly born (*'Western Med. Rev.,'* 1912, xvii, *p.* 334).—**M. Dunn** records a case in a full-term male child. Bleeding from the navel at first slight, afterward profuse and uncontrollable, occurred on the sixth day, and on the ninth hæmatemesis and subcataneous hæmorrhages. Death, preceded by convulsions, took place on the tenth day. No necropsy. A review of the literature is given.
J. D. Rolleston.

Morbus maculosus neonatorum (*'Western Med Rev.,'* 1912, xvii, *p.* 334).—**A. J. Coats** records a case in a female child, born by an easy labour at the eighth month. Practically every mucous surface as well as the skin was affected. Involvement of the brain was shown by left hemiplegia and ptosis. Death took place on the fifteenth day. J. D. Rolleston.

Omphalorrhagia neonatorum (*'Med. Record,'* 1912, i, *p.* 68).—**John H. Richards** takes exception to the title *hæmophilia neonatorum*, as applied to bleeding from the umbilicus during the first days of life, and prefers that of *omphalorrhagia neonatorum*, which is non-committal. Of 576 bleeders recorded by Grandidier only twelve had any hæmorrhage at this period. Dr. Richard records a case. The baby was born ten days prematurely by induced labour. On the fifth day, after the umbilical stump had dropped off, profuse bleeding from the umbilicus began. This was ultimately stopped, after the child had become almost moribund, by a purse-string suture around the base of the umbilicus. By this time, however, there was bleeding also from the nose and gums, and a little blood was passed by the bowel, and a little more vomited. Thirty minims of the father's blood-serum were given hypodermically every three hours, and soon after the first

dose clotting was seen. The serum was continued for four days. The coagulation time on the sixth day of life after administration of the serum was forty minutes, on the seventh day fifteen minutes, and afterwards it gradually lessened until it arrived at the normal and remained there. Before the use of the serum no coagulation occurred at all. Blood examination showed a remarkably low count of blood-platelets at first. A point of interest was the presence of a little blood in the mother's milk occasionally. He believes that the cause of the affection is a want of coagulability of the blood, and suggests that the defect is in the pro-thrombin or its antecedents. This is borne out by the reduced number of blood-platelets from which it has been shown that pro-thrombin is derived (Fry). From the fact that the amount of serum needed to cure omphalorrhagia for all time is very small, it would appear that the condition is due to a diminished production of platelets, and that the production is increased permanently by the administration of serum. The serum acts as an activator. It differs from hæmophilia, because in the latter there is no change in the number of blood-platelets.

FREDERICK LANGMEAD.

Melæna neonatorum (*'Amer. Journ. Obst.,'* 1912, LXV, *p.* 1027).—**G. M. Boyd.**—A full-term, well-formed female child, on the fourth day of life, had profuse hæmorrhage from the bowel. As a donor could not be obtained the blood-serum from the cord of a recently delivered placenta was used. From 2–3 mimims to a drachm were injected at a time, and after the second or third subcutaneous injection the hæmorrhage ceased and the baby recovered.

J. D. ROLLESTON.

Infantile pernicious vomiting and rectal hæmorrhage (*'Pediatrics,'* 1912, XXIV, *p.* 216).—**Anna Ries-Finley** records the case of an infant, from whom only two distinct rectal hæmorrhages occurred, the first about 12 oz. in amount when the child was about thirty hours old, the second on the morning of the seventh day. Vomiting of green, slimy material started a few hours after birth, and became almost continuous. No bleeding occurred elsewhere than by the bowel. Death followed three hours after the second hæmorrhage. Post-mortem: Blood-clot was found in the intestine, but no local lesion, and the stomach contained a little altered blood.

FREDERICK LANGMEAD.

The subcutaneous injection of small quantities of human blood in spontaneous hæmorrhage of the newborn (*'Arch. of Pediat.,'* 1912, XXIX, *p.* 197).—**A. W. Myers** narrates the case of a child a few hours old suffering from bloody stools and vomiting of a large amount of clotted blood. Two injections of 3 c.c. and 5 c.c. of blood from a vein of the mother's arm stopped the hæmorrhage. F. R. B. ATKINSON.

The treatment of melæna neonatorum by human blood-serum (*'Therap. Gaz.,'* 1912, XXXVI, p. 77).—**W. R. Nicholson.**

Normal human blood-serum injections in melæna neonatorum and other conditions (*Ibid., p.* 81).—**J. E. Welch.**—Owing to the enormous mortality that results from this condition, any remedy that can be proved of utility should be welcomed. Both authors consider this is to be found in the injection of human blood-serum. The former author narrates one and the latter thirteen successful cases. Both prefer this remedy to transfusion. F. R. B. ATKINSON.

Convulsions in the newly born (*'Arch. f. Kinderheilk.,'* 1912, LVIII, *p.* 1).—**C. Stamm.**—Convulsions of a functional nature are rare in the newly born but are not unknown. The most usual cause is to be found in hæmorrhage of the brain, and this may arise, as in a case of the author's, intrapartum without the presence of a trauma. Leitz divides hæmorrhages in the newly born into supra-tentorial, intra-tentorial and mixed forms, the latter associating the symptoms of the two former. Supra-tentorial hæmorrhage shows the following symptoms: Great unrest, shrieking, tension of the fontanelles, dermographism, paleness of skin, facial paralysis, paralysis of the hypoglossus (the tongue deviates to the paralysed side) and accessorius, spasms and paralysis of arm and leg, oculo-motor symptoms and myosis. Lumbar puncture shows slightly blood-stained liquid, not pure blood. The symptoms in infra-tentorial hæmorrhage are comparative quietude, cyanosis, and disturbances of respiration. Lumbar puncture shows a large amount of blood. There are no distinct unilateral symptoms. Opisthotonos, stiffness of the neck and limbs, and clonic contractions of the limbs on both sides are marked. The author describes a case corresponding to this latter condition. F. R. B. ATKINSON.

Œdema neonatorum (*'Med. Record,'* 1911, II, *p.* 1063).—**Herman B. Sheffield** records an example of this condition, which is of particular interest, in that the usual causes were absent. The child was born at full term, weighed 8 lb., was not asphyxiated, was free from congenital syphilis, and showed no local infection. Œdema began on the sixth day. Repeated urinary examinations revealed no sign of renal disease, except a trace of albumin, which is commonly met with in the newly born. The rectal temperature was 97° F. The œdema disappeared entirely in about six weeks, while two grains of potassium acetate and ten drops of infusion of digitalis were being administered every four hours. FREDERICK LANGMEAD.

Diaphragmatic hernia of the newborn (*'Wien. klin. Rundschau,'* 1911, XXV, *pp.* 790 *and* 806).—**Keck** describes the pathological anatomy in a child who died five hours after birth from a diaphragmatic hernia. Such herniæ are either congenital or acquired, but even in the latter there is some anatomical predisposition. Dependent on the presence or absence of the hernial sac these deformities are divided into true and spurious diaphragmatic herniæ; but in the absence of a sac the condition is not properly to be regarded as a hernia at all: it is really an intestinal ectopia. The development of the diaphragm serves to explain the process by which these herniæ are formed. It is exceptional for the child to live more than four hours after birth. The diagnosis is difficult; occasionally pneumothorax can be made out. According to Mermann and Ikeda rhythmical thrusts of the fœtus against the uterine walls during the last months of pregnancy are a sign of fœtal singultus and of the presence of a diaphragmatic hernia; further observations are required before this can be accepted. It is doubtful whether surgical help can avail, although Ikeda has advised immediate laparotomy and reposition of the hernia.
M. D. EDER.

Torticollis in the newborn (*'Thèses de Paris,'* 1911–12, *No.* 197).—**D. Goldberg** maintains that torticollis at birth is not exclusively due to obstetrical traumatism. Histological examination of the sterno-mastoid in such cases may reveal Zenker's degeneration with hyperplasia of connective

tissue. Infections or intoxications in the parents, such as syphilis, tuberculosis or plumbism, are probably responsible for the lesions. The thesis contains the histories of seven cases, one of which is original.

J. D. Rolleston.

The early death of many children in one family (*'Jahrb. f. Kinderheilk.,'* 1911, lxxiii, *p.* 164).—**K. Stolte** considers there are three reasons for the above occurrences: (1) Syphilis or alcoholism in the parents. (2) Infectious diseases, including tubercle. He conjectures that an hereditary predisposition to infectious diseases may exist in some families. (3) Neuropathic taint in the parents, in which cases also alcoholism is often present. The first signs in the child are twitchings during sleep, night-terrors, and somnambulistic tendencies. These are apt to end in convulsions. The treatment of these three classes is as follows: (1) Anti-luetic remedies should be given to the parents until all signs of the disease are eradicated. (2) A rational treatment in the way of food should be employed to hinder as far as possible all tendency to infection. (3) Little can be done to ward off early death in the third class of cases, which usually result from mental degeneration. F. R. B. Atkinson.

The polygraph as an aid in diagnosis of cardiac conditions in children (*'Amer. Journ. Dis. Child.,'* 1912, iii, *p.* 69).—**G. R. Pisek** and **H. C. Coffin** used a modification of the Erlanger sphygmograph with a Hirschfelder attachment in the examination of children aged from four and a half to fifteen years suffering from congenital or acquired heart lesions. In each case satisfactory tracings were obtained from the brachial artery, præcordium and jugular bulb. It was found that the polygraph offered a means of accurate diagnosis which was not afforded by the ordinary methods of examination, and that the information obtained from the tracings was of value both for prognosis and treatment, *e. g.* digitalis heart-block should be suspected when the pulse became irregular during the use of the drug. Respiratory arrhythmia was surprisingly frequent, but extra systoles or auricular fibrillation were not found in children.

J. D. Rolleston.

Malformation of the heart (*'Cleveland Med. Journ.,'* 1911, x, *p.* 748).—**G. P. Edwards** describes a case of a baby in whom, on post-mortem examination, the following condition of the heart was found. The heart was enormously enlarged, and consisted chiefly of the right auricle, the walls of which were thin. The venæ cavæ were large and distended. The foramen ovale was closed; the tricuspid orifice and right ventricle were represented by a pit 8 by 5 mm. Leading from the pit a fibrous cord, about 4 mm. in diameter, could be traced along the anterior part of the aortic ring, representing the obliterated pulmonary artery. The left auricle was normal, but the left ventricle large. The mitral and aortic valves were normal. The aorta was very large. The ductus arteriosus admitted a 2 mm. probe, and was continuous with the first branches of the pulmonary artery.

F. R. B. Atkinson.

Mild and latent cases of congenital heart disease (*'Clin. Journ.,'* 1912, xxxix, p. 209).—**A. J. Jex-Blake** enters into a consideration of this subject, describing its ætiology, preponderance in the male sex, and heredity, pathology, and physical signs and symptoms, with illustrative cases to show the latency of the affection. The appearance of the heart on examination

by the X rays also receives attention, and mention is made of Groedel's diagnostic sign of defect in the interventricular septum, namely, the appearance on the screen of simultaneous contraction towards the middle line of both sides of the cardiac shadow when ventricular systole occurs.

F. R. B. Atkinson.

Congenital pulmonary stenosis (*'Brazil Médico,'* 1912, xxvi, *p.* 81).—**Gesteira** describes a case in a child, aged 4½ years, who had never suffered from cyanosis. There had been frequent attacks of bronchitis and measles at the age of three. Dulness and moist crepitations were found in the chest. Dulness over the cardiac region was rectangular, passing over to the right border of the sternum. Apex-beat in sixth space outside mammary line; fremitus felt more distinctly at pulmonary base. A loud rough murmur, which occupied the whole of the systole, was heard over the cardiac region, most distinctly at the pulmonary base and directed towards the external extremity of the clavicle. The second pulmonary sound clear and resonant. Radioscopic examination (a photograph accompanies article) showed enormous enlargement of the heart, with considerable dilatation of the right side. The ætiology and pathology of the condition are discussed. Syphilis is one of the chief causes; other cases are due to intra-uterine inflammatory conditions or to structural defects. M. D. Eder.

Cardiac troubles following severe infections (*'Paris Méd.,'* 1911-12, i, *p.* 10).—**V. Hutinel.**—(1) Bradycardia is chiefly met with after diphtheria. Where the heart and pulse are both slow about 70 per cent. of the patients die. After scarlet fever bradycardia is rare. (2) Tachycardia is more frequent, and is met with after many diseases which do not require enumeration. (3) Arrhythmia is not due to myocarditis, but to the nervous influence on the heart. The treatment recommended by Hutinel consists in milk and vegetable diet, abstinence from meat, and rest. Digitalis aggravates arrhythmia, and is to be avoided. Gymnastic movements from twenty to thirty minutes every day, properly supervised, are invaluable. Salt bath or carbo-gaseous baths and abdominal massage are also in place. Physio-therapy is much more valuable than drugs.

F. R. B. Atkinson.

Changes in the heart-muscle and especially the arterio-ventricular bundle in diphtheria (*'Virchow's Archiv,'* 1912, ccvii, *p.* 115).—**T. Tanaka** examined the heart of fifteen children who had died from faucial diphtheria, and came to the following conclusions: (1) Acute failure of the heart in diphtheria is to be attributed to general disease of the myocardium, with or without simultaneous affection of the atrio-ventricular bundle. (2) The essential changes in the atrio-ventricular bundle in diphtheria are fatty and waxy degeneration. (3) The atrio-ventricular bundle shows a certain independence pathologically. (4) Fatty and waxy degeneration form the principal morbid processes in the general heart musculature in diphtheria, while interstitial infiltrations are of secondary importance.

J. D. Rolleston.

Auricular fibrillation and heart-block in diphtheria (*'Heart,'* 1912, iii, *p.* 233).—**F. W. Price** and **I. Mackenzie** record a case in a girl, aged 9 years, suffering from severe diphtheria. The pulse fell from 84 to 44 within a few hours on the sixth day of disease, and death, preceded by cardiac dilatation and enlargement of the liver, occurred on the eleventh day.

The polygraphic tracings suggested that the slow ventricular rhythm was not associated with an independent auricular rhythm, but that the auricle was in a state of fibrillation. Post mortem the heart showed extreme degeneration and cellular infiltration of the cardiac muscle, especially in the ventricles, occurring in scattered foci of irregular size and distributed largely in the course of the vessels. The sino-auricular node or bundle was not affected. No change was found in the nerve-trunks and ganglia in the posterior walls of the auricles (*cf.* British Journal of Children's Diseases, 1912, ix, *p.* 322). J. D. Rolleston.

Extreme bradycardia (*'Austral. Med. Journ.,'* 1911, i, *p.* 184).—**W. Summons** narrates a case of a boy, aged 14 years, who, on the eighth day of an attack of diphtheria, was suddenly taken with extreme drowsiness and pallor of the face. There was no cyanosis: the pulse-rate was 16 per minute. Stimulants, warmth, alcohol and strychnine, $\frac{1}{30}$ gr. hypodermically, increased the pulse-rate to 23 per minute, but the child died in twenty-four hours. F. R. B. Atkinson.

Causes of paralysis of the hypertrophied heart (*'Jahrb. f. Kinderheilk.,'* 1911, lxxiv, *p.* 123).—**Karl Frenkel** describes the case of a girl, aged $9\frac{1}{2}$ years, who died from aortic incompetence of rheumatic origin, with great hypertrophy of the muscular system of the heart, and considers death was due to disturbance or removal of the power of conductivity of the heart, and as a result sudden cessation of contraction of the chambers to be referred to the poisons acting as excitants of the inflammation.
F. R. B. Atkinson.

Malignant endocarditis in a child aged 8 years (*'Gaz. Hebd. des Sci. Méd. de Bordeaux,'* 1911, xxxii, *p.* 615).— **Dupérié** records the case of a boy who had suffered from headache and fever for ten days, and was admitted to hospital with a diagnosis of typhoid fever; the ordinary symptoms of that disease did not develop and Widal's reaction was negative. The boy wasted and the pulse became rapid, being often 140 to 160, while the temperature hardly rose beyond 100·5° F. There was a soft apical systolic murmur, but no sign of enlargement of the heart, and slight pericardial friction at the base. There was some disseminated bronchitis, and the urine contained a trace of albumin. After six weeks of fever the blood gave a pure culture of staphylococci; from this a vaccine was prepared and 100 millions were injected; a week later 200 millions were injected. The temperature became more oscillating, and a swelling was found in the left hypochondrium, at first thought to be an abscess, but later found to be an enlarged spleen. An attack of articular pains supervened after which the temperature became lower, but the liver as well as the spleen became enlarged and tender. The child became more and more cachectic, œdema appeared, then purpura, and finally death occurred after an illness of four months. The autopsy showed ulcerating vegetations on the mitral valve, great congestion of the lungs and liver, multiple infarcts in the spleen and kidneys, with acute nephritis. The case is reported on account of its unusually slow progress in a child.
J. Porter Parkinson.

Purulent pericarditis in children (*'Arch. de méd. des enf.,'* 1912, xvi, *p.* 95).—**V. Imerwol.**—This is a rare disease in children. Of 5971 children in the hospital for diseases of the children in St. Petersburg, it was

met with only thirteen times. It is commoner during the first month than at any other time during the first year (Bednar). Some believe that boys have a greater tendency to the affection than girls; others that both sexes are equally divided. The primary disease is very rare: secondary pericarditis is due most frequently to rheumatism, but has been met with in tuberculosis, pyogenic affections of the cord, osteomyelitis, abscess, tonsillitis, suppurative otitis, infectious diseases, kidney affections, and pulmonary diseases, as pleurisy and pneumonia. Trauma, not a wound of the pericardium, but a blow in the precardial region, is a very rare cause, and such a case is described by the author in a boy of six. A purulent pericarditis ensued, and the pus was removed by pericardotomy with a happy result. The author also describes a case resulting from purulent pleurisy in a boy, aged 9 years, cured by the same procedure. He can only find two other cases in the literature similar to the first.

F. R. B. Atkinson.

Severe secondary hæmorrhage following application of leeches (*'Presse méd.,'* 1911, xix, *p.* 881).—**E. Weill** and **G. Mouriquand.**—Out of 100 cases in which leeches were applied six were affected with severe secondary hæmorrhage, occurring three and a half to fifteen hours after the primary hæmorrhage had ceased. Two of the cases were children, aged 10 and 12 years respectively, suffering from heart disease, in whom the leeches had been placed over the liver: 300 grm. of blood were lost in each case, but without any permanent ill result. The condition is attributed to the passage into the blood of hirudin, which produces a transitory hæmophilia.

J. D. Rolleston.

Enlargement of the thymus; a remarkable case (*'Glasg. Med. Journ.,'* 1912, i, *p.* 31).—**A. M. Kennedy** records a case in a female child, aged 4½ years, death taking place suddenly after many weeks of illness, during which generalised anasarca was the most prominent symptom. The enlarged thymus was the cause of death, undoubtedly by its mechanical effects; but the death, although somewhat sudden in the end, only occurred after symptoms of cardiac failure had been present for some months. The two outstanding features found post mortem were enlargement of the thymus and hypertrophy of the right side of the heart, and there could be no doubt that these represented simply cause and effect. The thymus on section showed hyperplasia of the lymphoid tissue, but the most striking feature was the angiomatous condition of the tissue. The clinical history and post-mortem findings are very fully described.

J. Allan.

Congenital myxœdema; cystic goitre with feeble mentality (*'Med. Record,'* 1912, i, *p.* 705).—**H. B. Sheffield.**—(1) Girl, aged 6 months, normal at birth, with all the signs of cretinism in a well-marked form. Thyroid gland substance improved the condition considerably, but the idiocy invariably returned when the remedy was withdrawn. (2) Girl, aged 13 years, with a large cystic goitre and signs of idiocy. The author was unable to decide whether the case was one of hypo- or hyperthyroidism, as while her bodily development was good and hence precluded a deficiency of thyroid, her gradually increasing mental weakness simultaneously with progressive degeneration of the thyroid gland warranted such an assumption. Thyroid gland administered internally had no beneficial effect.

F. R. B. Atkinson.

A form of infantile dysthyroidism (*'La Pediatria,'* 1912, xx, *p.* 117).—**F. Franzi** describes the case of an infant, who showed no signs of disturbance while breast-fed, but who, immediately on commencing artificial feeding, had an intractable dermatitis, which only disappeared on resuming breast-feeding. When ultimately weaned seven months later the dermatitis reappeared, and yielded only to thyroid medication. The rational explanation of this fact, which until recently would have seemed extraordinary, lies in altered thyroid function. In the case reported there was evidently delay in development, and hence in thyroid function. In the first ten months of maternal suckling the infant took in with the mother's milk substances of thyroid origin which sufficed for its organic needs, but when the mother's milk failed the phenomena of infantile dysthyroidism due to instability of thyroid function made their appearance. On being suckled by a wet-nurse it again obtained thyroid substances, and the dermatitis disappeared. After the final weaning the condition was the same as at the first, because the thyroid had not yet been able to acquire its stable equilibrium, which, however, was soon effected by opotherapy, and the indication that it had been effected was the disappearance of the dermatitis. With increasing age the instability of the thyroid function disappeared, and the infant enjoyed perfect health.

VINCENT DICKINSON.

Endemic myxœdema (*'La Clin. Infant.,'* 1911, ix, *p.* 713).—**M. L. Revillet** reviews the conditions which have led to a complete disappearance of cretinism in the Canton d'Allevard. The predisposing causes were goitrigenous water and heredity, aided by the severe cold and absence of wind in the high valleys. The determining causes were the unhealthy houses with the humidity, darkness, and fœtor of rarified air polluted by fæcal emanations. Healthy dwellings and heliotherapy have been effectual in stamping out the disease.

VINCENT DICKINSON.

Hyperthyroidism and hypothyroidism in a girl, aged 10 years (*'Med. Record,'* 1911, ii, *p.* 749).—**S. V. Haas** showed to the New York Academy of Medicine the above case, which presented (1) hyperthyroidism, or exophthalmic goitre, with (*a*) exophthalmos, (*b*) enlarged thyroid, (*c*) hyperexcitability, (*d*) moderately rapid pulse, (*e*) loss of weight; (2) hypothyroidism, myxœdema, (*a*) mental and physical dulness, (*b*) rapid increase of adipose tissue, (*c*) pallor; (3) stage of balance, a disappearance of the myxœdematous symptoms though the weight was increasing.

F. R. B. ATKINSON.

Thyroiditis in scarlet fever (*'Monatsschr. f. Kinderheilk.,'* 1910, ix, *p.* 560).—**J. Bauer** records three cases, two in boys, aged 10 and 13 years, and one in a girl, aged 18 years, which occurred on the tenth, seventeenth, and forty-sixth days of scarlet fever respectively. In each case the attack of scarlet fever was very mild, the swelling of the thyroid of moderate degree, and accompanied by no symptoms beyond a slight rise of temperature.

J. D. ROLLESTON.

Parathyroid glands and infantile tetany (*'Arch. of Ped.,'* 1911, xxviii, *p.* 892).—**R. W. Bliss**, working in von Pirquet's laboratory at Breslau, removed the parathyroid glands in thirty-five cases, ranging from birth to nine years. Twenty-two, including two cases of tetany, were examined microscopically. Pathological changes were found in seven cases,

blood cysts in three, and increased vascular and connective tissue in four. In the former, who were all suffering from broncho-pneumonia, tetany could be excluded. Of the two cases of tetany, one with four parathyroids, and the other with three, one presented increased vascular and connective tissue, but neither showed any hæmorrhages in the glands (*cf.* BRITISH JOURNAL OF CHILDREN'S DISEASES, 1911, VIII, *pp.* 515–6). J. D. ROLLESTON.

Infantile spasmophilia and parathyroid glands ('*La Pediatria*,' 1912, XX, *p.* 16).—**G. A. Petrone** and **C. Vitale** conducted some researches by administration of parathyroidine in children by mouth and by hypodermic injection, and by experimental removal of the parathyroid glands in rabbits. There are two objections to the theory that infantile spasmophilia depends on insufficiency of the parathyroid glands, first because investigation of the parathyroids gave negative results in children who had died of spasmophilia (Thiemich, Ravenna, etc.), and secondly because parathyroid opotherapy gave negative results (Escherich, Concetti, Longo). In answer to the first objection it must be admitted that the parathyroids might be functionally inefficient without there being any anatomical or pathological change noticeable by our means of investigation. With regard to the second, MacCullum and Voegtlim state that opotherapy, if inactive by mouth, need not be so subcutaneously. The actual experience of the authors has proved the inefficacy of parathyroidine in four children affected by spasmophilia, in two of whom it was given by mouth and in two hypodermically. Escherich has formulated the theory that the secretion of living parathyroid glands may be different from that prepared in the laboratory from removed glands. The authors' experience lends some support to this theory, since they demonstrate the inefficiency of parathyrodine given hypodermically in rabbits which showed electro-galvanic hyper-excitability and other symptoms of irritability, due to parathyroid insufficiency produced by removal of the two parathyroids on one side and by crushing and puncture of those on the other.

VINCENT DICKINSON.

A case of tetany ('*Arch. Brasil. de Med.*,' 1912, II, *p.* 213).—**Mello Leitao** records a fatal case in a female child, aged 4 months. At the necropsy the parathyroids showed no sign of old or recent hæmorrhage, but some degeneration of the colloid was noted. There were vacuolar degeneration of the clear cells, absence of oxyphile cells, and pericellular cirrhosis. The lesions in the thyroid were much more marked. The gland showed an exaggerated production of interstitial tissue with perivascular sclerosis. The colloid was degenerated and in some places absent. Leitão fully discusses the whole subject of tetany, which he regards as a dysthymothyroparathyroidism. A bibliography of 170 references is appended.

J. D. ROLLESTON.

The calcium metabolism in infantile tetany ('*Am. Journ. Dis. Child.*,' 1912, III, *p.* 15).—**Herman Schwartz** and **Murray H. Bass** give a summary of the literature on this subject and record their own investigations of the case of a girl, aged 1 year. Metabolism experiments were made—(1) when manifest tetany was present; (2) when the tetany was markedly improved; (3) when its only trace was a slight facial irritability. They came to the following conclusions: (1) Sufficient data are not available to state definitely the absolute and percentage figures for calcium retention in the normal child; (2) the calcium in their case, as compared

with the few normal cases on record, did not seem diminished; (3) from Cybulski's and their cases it appeared that the calcium retention improves as the tetany disappears. FREDERICK LANGMEAD.

Tetanism (*'Med. Record,'* 1912, I, *p.* 846).—**Herman B. Sheffield** denotes by this term "a peculiar form of more or less *continuous* muscular hypertonicity occasionally observed in marantic infants under three months of age." He considers it represents a symptom-complex based upon a pathological entity different from any form of "spasmophilia" hitherto described. It is associated with faulty assimilation of food and probably results from intestinal auto-intoxication. He records the case of a baby, weighing a little over 3½ lb. at eight weeks of age. Its jaws were tightly set together and it required considerable manual force to separate them. During the acme of the spasm the head was sharply retracted. The forearms were firmly flexed upon the arms, whilst the hands were clenched, the fists coming into close contact with the clavicles or chin. Opisthotonos existed. The abdominal muscles were extremely tense. The legs were rigid, sometimes crossed. Partial relaxation occasionally occurred, but handling always increased the spasm. He considers "tetanus" was excluded because the baby could "nurse" without difficulty. The spasm was too continuous for "tetany" and the "triad of tetany" was absent. The child recovered. Death, however, is more commonly due to the gastro-intestinal derangement or complications. (It will be noted that the account of this case is characteristic of one of tetanus neonatorum. The only reason given by the author for differentiating it from tetanus is the fact that the baby took its food well. Its jaws, however, are stated to have been "tightly set together."—F. L.) FREDERICK LANGMEAD.

Splenomegaly (Gaucher) (*'Amer. Journ. Dis. Child.,'* 1912, III, *p.* 28).—**M. S. Reuben** reports three cases in a family. (1) Girl, aged 8 years. Progressive enlargement of abdomen since four years old. Liver 10 cm. below ribs. Spleen filled left iliac fossa. Red cells, 3,400,000; white cells, 6,200,000; hæmoglobin, 68 per cent.; differential count normal. Sudden death; no necropsy. (2) Girl, aged 9 years. Pain in abdomen for last year. Liver edge 2 in. below ribs. Spleen not enlarged. Red cells, 4,344,000; white cells, 6000; hæmoglobin, 75 per cent.; differential count normal. (3) Boy, aged 4 years. Large liver and spleen noted one year previously. Red cells, 2,208,000; white cells, 5000; hæmoglobin, 35 per cent. Reuben has collected thirteen other cases from literature, and comes to the following conclusions: (1) Splenomegaly (Gaucher) is a distinct disease. (2) It is probably congenital, and usually affects more than one member of the same family. Females are more susceptible than males (three to one). (3) The first symptoms may appear as early as the third year or as late as the twentieth. (4) The spleen becomes enormously enlarged, and is followed by a less extensive enlargement of the liver. (5) Vague abdominal pains are present. There is brown, yellow, or bronze pigmentation of the face and hands. (6) Hæmorrhages, if present, are not severe. (7) The disease is slowly progressive, and is marked by periods of temporary improvement. The disease may last from three to thirty-six years. (8) The majority die of intercurrent diseases. (9) The necropsy shows an endothelial hyperplasia in the spleen, liver, lymph-glands, and bone-marrow. J. D. ROLLESTON.

Primary spleno-hepatomegaly in brother and sister (*'Med. Record,'* 1911, II, *p.* 913).—**Sheffield** reports instances of primary spleno-hepatomegaly occurring in the second and fourth members of a family of four, the first and third children being unaffected and healthy. In both cases the Wassermann reaction was negative, and there were no evidences of syphilis. Swelling of the abdomen was the first sign of illness. Excellent illustrations of the patients are given. REGINALD MILLER.

On infantilism (*'Allg. Wien. med. Zeit.,'* 1912, LVII, *pp.* 71, 83).—**Wirschubski** describes a case of cretinism in a Jewess, aged 27 years, and discusses the possible causes of infantilism in general. He denies that every case is due to some deficiency of the thyroid. The sexual organs, the medulla oblongata, the pituitary body and perhaps other glands influence growth. Many cases should receive polyglandular treatment. Apart from the ductless and other glands it is possible that there may be in some cases a primary affective arrest of the brain itself. M. D. EDER.

Precocious menstruation (*'Osp. d. Bamb. d. Milan.,'* 1912, I, *p.* 17).—**G. Raffaelli** records a case in a child, aged 4½ years, in whom menstruation had commenced two months previously. The periods were preceded by abdominal pain, and lasted about eight days. There had been no previous illnesses. The intelligence was above the average for her age; the height and weight corresponded to those of a child of six years. There were a few hairs in the axillæ and the areolæ were well marked, but the mammary glands were not developed. The mons veneris was well marked and covered with scanty hairs about 1 cm. long. The labia resembled those of a child of ten to twelve years. The vaginal orifice admitted the little finger. A review of the literature is appended. J. D. ROLLESTON.

Otology, Rhinology, and Laryngology.

Cerebellar and cerebral abscess of otitic origin (*'Journ. de Méd. de Paris,'* 1912, XXXII, *p.* 171).—**Savariaud** and **de Lamothe** describe two cases, aged 14 years and 8½ years respectively. They insist upon the necessity of examining the ears in children presenting cranial symptoms, and of systematic search for such manifestations in all patients with chronic middle-ear suppuration before operating. MACLEOD YEARSLEY.

The pathology of deaf-mutism (*'New York Med. Journ.,'* 1912, I, *p.* 1189).—**G. Hudson Makuen,** in a "critical review," divides mutism into three groups: (1) Deaf-mutism, (2) psychic mutism, and (3) idiopathic mutism. He urges the necessity of correlating and comparing post-mortem findings with a thorough clinical examination during life, and comments upon the extraordinary dearth of reliable post-mortems on deaf-mutes in America. What little histological work has been done has failed utterly to point the way toward any definite conclusions with reference to the ætiology of the affection and to its treatment. Such work does not enable us to distinguish even between so-called congenital and acquired deaf-mutism, and there is very little to be found in the pathological processes themselves which is suggestive of the particular disease or diseases which caused them. MACLEOD YEARSLEY.

Results obtained in deaf and deaf-mute persons by re-education of the hearing (*'Gaz. des Hôp.,'* 1912, LXXXV, *p.* 904).—**Laimé** describes

the methods of Lermoyez and Urbantschitsch for re-educating the hearing. The means used should be speech principally. The method has, however, two faults: it is painful for the person applying it, and it takes a long time and is trying to the patience of the patient. Laimé has, therefore, used a microphonic amplifier, which augments the sound in the desired proportion, so that there is no need to elevate the voice. With this instrument he claims rapid results, if used prudently and progressively. Four cases are described. MACLEOD YEARSLEY.

Vaccine therapy in diseases of the ear, nose and throat (*'New York Med. Journ.,'* 1912, I, *p.* 273).—**Dabney,** after narrating several cases, concludes that vaccine therapy is a useful supplement to other methods of treatment, and should not be considered as an infallible substitute. Its use may prevent unnecessary suffering, loss of time and expense.
MACLEOD YEARSLEY.

The naso-pharynx and its relation to other regions (*'Clin. Journ.,'* 1912, XXXIX, *p.* 377).—**Macleod Yearsley** draws attention to the fact that the naso-pharynx is a meeting place of numerous passages, and, as such, a highly important anatomical locality for the reception or dissemination of infections. These are discussed with some detail. He draws attention to the field opened up by the introduction of Holmes's electric naso-pharyngoscope and Yankauer's naso-pharyngeal speculum, whereby diagnosis and treatment are rendered more easy. He also refers to the suggestion of Barraud, of Lausanne, that adenoids are often due to faulty artificial feeding.
AUTHOR'S SUMMARY.

Dermoid cyst of nose (*'Echo méd. du Nord,'* 1912, XVI, *p.* 185).—**Swynghedauw** and **Bertin** reported a case in a child with an ulcer of several months' duration in the midline of the nose. Owing to its persistence it was suspected to be syphilitic, especially as the mother showed signs of syphilis, but only slight improvement resulted from mercury and none from "606." On further examination the writers found 1 cm. below the ulcer a fistulous opening which had been present since birth, and after dilating it expressed some sebaceous matter. J. D. ROLLESTON.

The necessity of orthodontic interference in malformation of the dental arches and maxillæ (*'Cleveland Med. Journ.,'* 1911, X, *p.* 988).—**Casto** discusses the relation of the development of the upper maxillæ to the nasal septum and nasal fossæ and the relation of the occlusion of the teeth and their proper use to the growth of the upper maxillæ. He concludes that, whenever a deformity in the maxillæ and dental arches is recognised, orthodontic interference is advisable as early as possible.
MACLEOD YEARSLEY.

The tonsils in childhood (*'Amer. Journ. Dis. Child.,'* 1912, III, *p.* 277).—**J. Gordon Wilson** discusses the function of the tonsils, especially in children. He points out that the palatine tonsil always retains a communication with the pharynx, especially in the Carnivora; that developmentally it is not a lymph-node, and that there is good ground for the belief that its physiological activity is of greatest importance in early life. At the same time there is no evidence that it is a recessive organ in man. He distinguishes in the life-history of the tonsil two periods: (*a*) period of functional activity before puberty; (*b*) after puberty, when it persists chiefly as an aggregate of lymph-nodules which tend to atrophy. Treatment should in

the child be conservative, therefore, and in adults radical. He points out that mere fluctuations in size of a child's tonsil ought not to be regarded as a sign of disease and an indication for enucleation; they are rather to be regarded as an indication of functional activity. The tonsil probably protects the upper respiratory and alimentary tracts, and is associated directly with their well-being; therefore everything should be done to protect the tonsils during the period of functional activity. Nevertheless, they must be removed if, on account of disease or loss of function, they are a source of infection.

MACLEOD YEARSLEY.

Chronic tonsillitis caused by a staphylo-bacillus (*'Gaz. de hôp.,'* 1912, LXXXV, *p.* 241).—**J. Perquis** and **F. Chevrel** record a case in a girl, aged 8½ years, in whom the tonsils were covered with membranous deposit. In spite of vigorous treatment the tonsillitis persisted for nearly nine months. The general condition remained normal. Bacteriological examination revealed a *Staphylo-bacillus albus*, staining by Gram, and very feebly virulent for the guinea-pig and rabbit, except by intra-venous injection in large doses. The same microbe has been described by Sacquépée in various conditions, *e. g.* as a secondary infection in meningococcal and tuberculous meningitis, in the ascitic fluid of atrophic cirrhosis, in association with *B. coli* and staphylococcus in the intestinal mucus of acute enteritis, and with enterococcus and tetragenus in the blood of a septicæmic patient. J. D. ROLLESTON.

Lymphadenoma of the tonsil simulating a chancre (*'Bull. Soc. franç. de derm. et syph.,'* 1912, XXII, *p.* 155).—**J. Renault** and **E. Cain.**—A boy, aged 7 years, was brought to hospital for loss of flesh and inability to speak or swallow. Examination of the throat showed an enormous hard and painless swelling of the right tonsil, the inner surface of which was ulcerated. The submaxillary and cervical glands were enlarged and painless. No Vincent's organisms, diphtheria bacilli nor *Spirochætæ pallidæ* were found. Wassermann's reaction was partially positive. No improvement followed eight intra-venous injections of cyanide of mercury, and death took place suddenly from suffocation. There was no autopsy, but a portion of the tumour removed before death showed it to be a typical lymphadenoma of the tonsil. J. D. ROLLESTON.

Complications of tonsillitis (*'Presse méd.,'* 1912, XIX, *p.* 442).—**Jambé.**—An epidemic of streptococcal tonsillitis broke out in a girls' boarding school. Most of the cases ran an ordinary course, but two deserve special mention. The first was followed by pericarditis, which cleared up without further complication. The second case was followed by a relapse. Two days after recovery symptoms of appendicitis occurred, rapidly followed by those of generalised peritonitis. The diagnosis was confirmed by laparotomy, and examination of the pus showed streptococci. Death took place shortly after the operation. J. D. ROLLESTON.

Anæsthesia in tonsil enucleation (*'New York Med. Journ.,'* 1912, I, *p.* 386).—**Garthwaite-Fisher** advises local anæsthesia by cocaine and adrenalin, in the proportion of 1 gr. of the first to ½ drm. of the second in 7 drm. of sterile water. This solution is injected at different points round the tonsil after preliminary swabbing with a 10 per cent. solution of cocaine.

MACLEOD YEARSLEY.

Recurrence of adenoids in children (*'La Clin. inf.,'* 1912, X, *p.* 265).—**V. Chambellan** says that out of 2983 cases operated on by him there were 147 cases of recurrence. These may be placed in three groups accord-

ing to the number of recurrences; thus out of 147 cases, 125 recurred once, 21 twice, and 1 only three times. In a large majority the recurrence took place at the end of eighteen months to three years; the extremes were six months and five years. Contrary to the general belief recurrences take place less frequently in younger children; the author has never seen it before six months. One should not, therefore, hesitate to operate on young infants for fear of an early recurrence. The author has known cases operated on at the age of thirteen or fourteen years have recurrences at the age of from sixteen to nineteen years. Means should be taken to prevent recurrence by treatment of lymphatism and chronic posterior nasal catarrh.

VINCENT DICKINSON.

The relation of adenoids to recurrent vomiting (*'Am. Journ. Obst.,'* 1912, LXV, *p.* 377, and *'Am. Journ. Dis. Child.,'* 1912, III, *p.* 212).—**J. C. Sedgwick** points out that the idea that acid intoxication is the cause of recurrent vomiting is being generally discredited. He recounts the views held by various authors. Comby considers that appendicitis is important. Others speak of membranous enteritis, neurosis, hysteria, arthritism, diminished oxidation, and hypersecretion of gastric juice as causal. The liver is considered by some, and Hecker emphasises the disturbance of fat metabolism. Aviragnet, Breton, Griffith, Misch, Irving Snow and Comby mention disturbances of the nasal pharynx in connection with these cases, and Rachford says, "Recently I have been interested especially in vasomotor coryza as an almost constant warning symptom in a number of cases." Janeway and Mosenthal state that the strongest argument in favour of its being due to an undiscovered focus of infection is the leucocytosis. Sedgwick's series of 22 cases showed adenoids in 20. The posterior cervical glands were usually enlarged. A very common prodromal symptom was sore throat or nasal discharge. Chorea, rheumatism and endocarditis were complications in three cases. Surprisingly satisfactory results had followed removal of the adenoids in some of the cases, of which he records six.

FREDERICK LANGMEAD.

Tubercular laryngitis in an infant aged 17 months (*'Med. Press and Circ.,'* 1911, II, *p.* 604).—**J. Middlemass Hunt.**—The symptoms were those of severe laryngeal obstruction, which the direct method of examination showed were due to swelling and œdema of the right ary-epiglottidean fold, which was also superficially ulcerated. Tracheotomy was performed and small doses of hydrarg. c̄ creta were given, although there were no signs nor any history of syphilis. Tubercle bacilli were found in a portion of the larynx removed. The child died about three months after the onset with signs of broncho-pneumonia. The necropsy showed general miliary tuberculosis. There was ulceration of the right ary-epiglottidean fold and ventricular band, and, to a less extent, of the left arytenoid, with prominent granulations over the ulcerated surfaces. The lesion in the lung was probably older than that in the larynx.

J. D. ROLLESTON.

A case of retained tracheotomy tube and laryngeal stenosis (*'Austral. Med. Journ.,'* 1912, XXXIV, *p.* 372).—**P. S. Webster** and **S. W. Ferguson** describe the case of a boy, aged 4½ years, in whom tracheotomy had to be performed for diphtheria. The tube remained *in situ* for fourteen days and was then removed for six days, when it had to be re-introduced owing to increasing obstruction. Twelve months afterwards, the tube having been worn all this time, operation was performed on the stenosis and dilata-

tion periodically undertaken by Hegar's dilators. The tube was not permanently removed for another twelve months. F. R. B. Atkinson.

Intubation of nearly eight years' duration; recovery (*'Giorn. internaz. d. Sci. med.,'* 1912, xxxiv, *p.* 552).—**D. Tanturri.**—A boy, now aged 10 years, was intubated for laryngeal diphtheria with a metal tube, subsequently replaced by one of vulcanite. As he could not do without the tube, tracheo-bronchoscopy was performed under an anæsthetic and revealed infiltration of the hypoglottic region, with exuberant granulations on the posterior surface which were probably due to chondro-perichondritis of the cricoid. The stricture was gradually dilated by intubation alone, as all other operations were forbidden by the family, and a tube had to be worn for seven years and ten months, during which time Tanturri intubated the child about a thousand times. O'Dwyer's or Bayeux's introducers were used with a safety thread, and O'Dwyer's forceps or Bayeux's manual enucleation method was employed for extubation. At first the child was fed with an œsophageal tube, but afterwards took his food in the ordinary way. Laryngoscopy at present shows fixation of the right vocal cord from ankylosis of the crico-arytenoid articulation. The rima glottidis is somewhat narrow, but is sufficient for respiration. Other cases of prolonged intubation in literature are the following: Egidi 23 days, Belfiore 73 days, Knight 3 months, Charmel 6 months, Tanturri 136 days. In Bonain's case, after the tube had been worn for three years, tracheotomy was performed and death took place from acute miliary tuberculosis.

J. D. Rolleston.

Foreign body impacted in the bifurcation of the left bronchus of a boy; removal (*'Austral. med. Journ.,'* 1912, xxxiv, *p.* 408).—**R. A. Stirling** removed a small whistle $\frac{1}{2}$ to $\frac{1}{4}$ in. in size from the left bronchus of a boy, aged 11 years, by means of a Paterson nibbling forceps through a low tracheotomy wound. F. R. B. Atkinson.

Congenital atresia of the œsophagus with a tracheal fistula (*'Arch. f. Kinderheilk.,'* 1912, lviii, *p.* 191).—**W. J. P. Shukowsky** and **A. A. Baron** describe the above condition in a girl born at the eighth month, and also mention other cases of congenital abnormalities of the œsophagus from the literature. Congenital abnormalities of other organs are frequently present. No operative interference has ever been successful. A constant clinical symptom is vomiting of nourishment through the nose and mouth.

F. R. B. Atkinson.

A case of œsophageal stricture (*'Austral. med. Gaz.,'* 1912, i, *p.* 465).—**A. G. Salter** describes a successful case in a boy, aged 4 years, in which the stricture was due to swallowing caustic soda. The abdomen was opened, and a small bougie was passed from below upwards through the cardiac orifice. The stricture was enlarged by sawing through it with silk thread passed from below upwards to the mouth. F. R. B. Atkinson.

Necrosis of larynx, trachea and œsophagus in scarlet fever (*Arch. f. Laryng.,'* 1911, xxv, *p.* 145).—**E. Oppikofer.**—Among 15,747 necropsies performed at the Bâle Pathological Institute between 1874 and 1911 were 128 cases of scarlet fever. Of these 92 showed some inflammation of the larynx, trachea and œsophagus. In 26 there was only œdema glottidis or an acute laryngitis, or laryngo-tracheitis, but in 66 cases, of which short histories are given, there was definite necrosis. Such lesions were much

more frequently found in young children than in older patients, for although the ages ranged from six months to thirty-five years, only four were older than ten years. Thirty-seven were males, twenty-seven females. In all the 66 cases the faucial lesions were also extensive; in 3 death was due to hæmorrhage from arterial erosion (in 2 cases of the external carotid, and in 1 of the lingual artery, *cf.* British Journal of Children's Diseases, 1910, vii, *p.* 226). In 2 there was internal jugular phlebitis. In 62 of the 66 cases the laryngeal mucosa was involved to a greater or less extent; among these were 14 cases of tracheal and 2 of bronchial ulceration. In 15 of the 128 cases the œsophagus was affected. As in the larynx and trachea, the site of predilection for the necrosis was the upper part, but exceptionally the lower end was alone attacked. In 5 cases the necroses extended the whole length of the œsophagus. Histological examination showed loss of the epithelium, tunica propria, and in some cases of the muscular coat. In the peri-œsophageal tissue in addition to foci of round-celled infiltration dilatation and engorgement of the blood- and lymph-vessels were seen. Bacteriological examination, which was performed in a few cases, showed no diphtheria bacilli, but streptococci and staphylococci. Oppikofer concludes that laryngeal and œsophageal lesions are much commoner in scarlet fever than is usually supposed, and suggests that they are present in many severe cases which recover. Some cases of œsophageal stricture of unknown ætiology whose origin dates back to childhood he thinks are probably due to an old attack of severe scarlet fever. As prophylactic treatment he recommends careful disinfection of the mouth and throat several times daily in cases of scarlatinal anginosa. The paper contains a valuable survey of the literature.

J. D. Rolleston.

Post-scarlatinal stricture of œsophagus (*'Centralbl. f. Laryng.,'* 1910, xxvi, *p.* 31).—**W. R. Chessin** has found four such cases in the literature of the last twelve years (Ehrlich, Hacker, Boas, and Ziherbilver), and records a personal case in a man, aged 23 years, who had suffered from gradually increasing difficulty in swallowing since an attack of scarlet fever at the age of twelve years. On passing a sound an obstruction was met 33 cm. from the teeth. Œsophagoscopy showed at this point a cicatrix with a lumen of less than 0·5 cm. Above the stricture was a small diverticulum, and below it was a number of other strictures, through which a No. 20 bougie was passed with difficulty. After about two weeks' systematic passage of bougies accompanied by œsophagoscopy the patient was able to take his food fairly well. Disease of the œsophagus following scarlet fever is due either to direct spread from the pharynx or to infection through the blood- or lymph-channels. In the present case Chessin attributes the condition to disease of the neighbouring lymph-glands. Œsophagoscopy has rendered the treatment of such cases possible without surgical operation.

J. D. Rolleston.

Post-scarlatinal stricture of œsophagus (*'Wien. klin. Woch.,'* 1911, xxiii, *p.* 681).—**K. Preleitner.**—A previously healthy child, aged 3 years, had a severe attack of scarlet fever, which lasted for six weeks. At the end of that time it was only able to swallow soft solids, though the appetite was good. The dysphagia increased until it could only swallow fluids. Emaciation became marked, and there was frequent expectoration of mucus. Examination showed loss of substance in the anterior pillars and uvula and cicatricial lesions of the soft palate and pharynx, and a stricture of the œsophagus 21 cm. from the teeth. This was gradually dilated until a bougie

(No. 10 English) could be passed. The child was then able to take its food well, and its general condition became much improved.

J. D. Rolleston.

Reviews.

Syphilology and Venereal Disease. By C. F. Marshall, M.D., M.Sc., F.R.C.S. Second edition. London: Baillière, Tindall & Cox, 1912. Price 10s. 6d. net. Pp. 560.

Dr. Marshall's book is well known as a valuable work of reference and is of special interest to pædiatrists in that nearly a hundred pages are devoted to the various aspects of syphilis in children. In addition to an exhaustive description of the symptomatology of heredo-syphilis special chapters deal with heredo-syphilis of the nervous system, heredo-syphilis of the eye and ear, and syphilis of the third generation. We would invite special attention to the author's views on paternal transmission, on the contagiosity of heredo-syphilis, and to the remarkably practical advice on prophylactic and curative treatment. The tendency to regard nearly all bone diseases in children as tuberculous is noted, whereas it is pointed out that many cases are syphilitic either in nature or in origin.

The present volume, the first edition of which appeared a little more than five years ago, has been brought up to date by a critical survey of the recent additions to our knowledge. A clear account of the history and technique of Wassermann's reaction and of Ehrlich's chemo-therapy is to be found, and the treatment of syphilis by "606" is impartially criticised. A new chapter has also been added on the vaccine and serum treatment of gonorrhœa.

J. D. R.

Studies in Infantile Paralysis during 1910, by the Washington State Board of Health.

This brochure of seventy pages includes the report on Infantile Paralysis in the State of Washington during 1910, by Eugene R. Kelley, Walter Gellhorn, and John B. Manning. An appendix is added dealing with infantile paralysis in the city of Seattle, by Willis H. Hall. The publication of the reports was delayed until September, 1911.

The volume follows the lines of similar publications from other State Boards. It opens with a section dealing with recent work on the disease, laying particular stress on such points as are of practical importance, especially in prophylaxis. Then follows a careful classification of the cases occurring in the district, with observations on their age and monthly incidence, relationship to temperature, rainfall, etc. Some interesting examples of possible direct contagion are recorded. No new points are brought forward.

R. M.

Transactions of the American Pediatric Society: Twenty-third Session. Edited by Linnaeus Edford La Fetra, M.D. Chicago: American Medical Association Press.

This volume contains thirty-six papers, many of which have been published elsewhere and have already received notice in this Journal. Metabolism in infants is dealt with by Hermann Schwartz, Raymond Hoobler, and Fife

and Veeder; ward problems are discussed by Francis Huber, Northrup, and Koplik; infectious diseases by Crozer Griffith, Matthias Nicoll, Caillé and Graham; poliomyelitis by Robert Lovett, Koplik, Lovett Morse, Flexner and Knox; infant feeding by John Howland, Emmett Holt, Lovett Morse, Heiman, Coit and Ruhräh; and pyloric stenosis by Graham and Keith Shaw and Ordway. J. D. R.

Report to the Local Government Board upon the Available Data in Regard to the Value of Boiled Milk as a Food for Infants and Young Animals. By Janet E. Lane-Claypon, M.D., D.Sc. Lond.: Local Government Board Report. Price 9d.

The main question which receives consideration in this report is concerned with the relative values of boiled and raw cow's milk in the feeding of infants. As the result of her investigations the author concludes that "such small differences as have been found in the nutritive values of raw and boiled milk have been in favour of boiled milk." Clearly in these days of the wholesale feeding of infants on cow's milk the problem here discussed is of the greatest importance. Dr. Lane-Claypon is to be congratulated upon the way in which she has marshalled the facts revealed by her prolonged investigations and upon the clearness with which she states her conclusions founded upon these facts.

The report opens with a short *resumé* of the history of the artificial feeding of infants and the introduction of boiled milk for this purpose. A wise word of warning is given on the confusion arising from the improper use of the words "boiled" and "sterilised" as applied to milk. The subject of infant feeding is throughout viewed in true perspective, the author losing no opportunity of emphasising the superiority of natural methods over artificial feeding.

The relative nutritive value of raw and boiled milk of the same species for feeding is discussed. The evidence as regards infant feeding is naturally here scanty, but experimental evidence is more plentiful. The interesting observations of Hittcher on the importance of the salt-content of the milk are given. The conclusion is reached that "there is apparently no serious loss of nutritive value produced by feeding an animal on boiled milk derived from an animal of the same species."

Passing to the main section of the report dealing with the value of raw or boiled milk of a different species for feeding purposes, the experimental and clinical results of many observers are given. The most interesting matter is to be found in the part devoted to the consideration of the results obtained by Dr. Ballin in his Infant Consultation in Berlin. These are thoroughly investigated by the author and fully reported. In such an inquiry as this it is natural that the question of the progress in body-weight should be the main point relied upon, and although this is open to some small criticism on clinical grounds, it is difficult to see how it could be avoided. Other results, such as the tendency to the production of rickets and scurvy, are, however, dealt with briefly. The author's conclusions have already been noted.

We extend a hearty welcome to this valuable report, based as it is upon so wide an investigation carried out with so much care, and venture to express the hope that it will assist in laying at rest some of the prejudices against the feeding of the infants of our towns upon boiled cow's milk.

R. M.